





YALE ORIENTAL SERIES

RESEARCHES VOL. II

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THE DATED

ALEXANDER COINAGE

OF

SIDON AND AKE

BY

EDWARD T. NEWELL



NEW HAVEN: YALE UNIVERSITY PRESS

LONDON: HUMPHREY MILFORD

OXFORD UNIVERSITY PRESS

MDCCCCXVI

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PUBLISHED JUNE, 1916  
THREE HUNDRED COPIES PRINTED FROM TYPE

890, Y12, v.2  
Newell, Edward Theodore  
The dated Alexander  
coinage of Sidon and  
Ake

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## INTRODUCTION

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IT may be said, without fear of contradiction, that of all the many coins bearing the name and types of Alexander the Great, by far the most important to us are those struck in the two Phoenician cities of Sidon and Ake. This is not because these two coinages are particularly large, or of unusually fine style, or of any considerable importance in ancient times. Compared to certain other Alexander mints of this period (such as Pella, Amphipolis, Babylon, and many others) our two mints were relatively unimportant; and, if, on the whole, the artistic level of the Sidonian issues is not bad, at times even quite fine, that of Ake is almost beneath contempt. The great value and interest of these particular coins to us lies in the fact that they, the only ones of all the mass of "Alexanders" struck before the middle of the third century B. C., are actually *dated*. Aside from the special interest attached to this fact, so unusual in early Greek coinages, they are, for this very reason, of exceptional assistance to us in dating contemporary but undated Alexander issues of neighbouring mints. In studying such "finds" of this period as happen to contain specimens of our coins these absolutely fix the date *post quem* of the hoard's burial, and often even indicate the actual year in which the deposit occurred. In fact, these two coinages must form the basis of any study of the Alexander issues of the many mints of Cilicia, Phoenicia, Palestine, Babylonia, and Egypt. That this has already been recognized is clearly shown by the fact that more has been written about Alexander's Phoenician mints than about nearly all of his other mints put together. After the successful labors of such eminent numismatists as G. F. Hill, Dr. Jules Rouvier, R. Dussaud and others, the present writer may indeed be accused of needlessly wasting much time and attention on ground which seems to be so thoroughly worked over. It is hoped that an answer to this will be found in the results of the following pages.

Among other things it has been possible to bring to light many new and unpublished varieties; to assign to the mint of Sidon two series of staters

which till now have remained unattributed and in part unknown; to show that the Ake coins fall into *two* dated series, that these two series refer to two distinct eras, that the hitherto accepted era to which these two series *together* are made to refer is wrongly taken, and that consequently the computation of these dates is in error by many years. This last error has been particularly pernicious in vitiating the results of the studies of the few known finds of Alexanders which have contained specimens from the Ake mint.

As a basis to this work, as many coins as possible have been brought together either in actual specimens or in casts and impressions. Each separate variety has been given a number; 1 to 70 for Sidon, 1 to 51 for Ake. These varieties have been collected into groups or series according to certain characteristic features as presented by each series. These series follow each other chronologically as proved by actual dates or other signs found on the coins themselves. Each individual obverse die has been given a Roman *letter* in the case of the staters, a Roman *numeral* in the case of the tetradrachms. The reverse dies of each variety (whether staters or tetradrachms) have been given *Greek* letters; each variety recommencing with *a*. This avoids long and complicated enumeration for the reverse dies, which outnumber the obverse dies about three to one. In only five cases, all duly noted, has a reverse die, used for one variety, been later altered to do duty for the succeeding variety. This very alteration, however, strictly speaking, makes a new die out of the old one. Following the Greek letter designating the reverse die comes the name of the museum or private collection where a coin having this particular die is preserved. Weights in grammes have been added when ascertained.

For the historical background of this work Droysen: "Geschichte des Hellenismus" 2nd Edit., and Niese: "Geschichte der griechischen und makedonischen Staaten" have been extensively used. Where no reference is given, these two works are supposed to be the authorities followed.

Collections whence casts have been obtained are noted throughout the work with the name of the city for the public collections, with the name of the owner for private; as follows:

#### PUBLIC COLLECTIONS.

ALEXANDRIA. Musée Grecquo-Romain.

BERLIN.<sup>1</sup> Das Münzkabinett, Kaiser-Friedrichs Museum.

BRUSSELS. Bibliothèque Royale de Belgique.

CAMBRIDGE. Leake and McClean Collections, Fitzwilliam Museum.

<sup>1</sup> The names in parentheses following Berlin denote the former private collection to which the coin belonged.

COPENHAGEN.	Konigliches Münzkabinett, Prinsens Palais.
GLASGOW. <sup>2</sup>	The Hunterian Collection.
GOTHA.	Grossherzogliches Münzkabinett.
HAUGE.	Koninklijk Kabinet.
LONDON.	British Museum, Department of Coins and Medals.
MUNICH.	Kgl. Münzkabinett.
NAPLES.	Museo Nazionale.
NEW YORK.	Metropolitan Museum of Art.
PARIS. <sup>3</sup>	Bibliothèque Nationale.
PETROGRAD. <sup>3</sup>	Imperial Hermitage.
TURIN.	R. Museo di Antichità.
VIENNA. <sup>3</sup>	K. u K. Münzkabinett.
YALE	Yale University Collection.

## PRIVATE COLLECTIONS.

AM. NUM. SOC.	The American Numismatic Society, New York.
BEATTY.	W. Gedney Beatty, New York.
DATTARI.	Cav. G. Dattari, Cairo.
DAVIDSON.	Dr. S. Davidson, Oxford.
E. T. N.	E. T. Newell, New York.
JAMESON. <sup>4</sup>	M. R. Jameson, Paris.
ROUVIER. <sup>5</sup>	Dr. J. Rouvier, Algiers.
STORRS.	R. Storrs, Esq., Cairo.
TORREY.	Prof. C. Torrey, New Haven, Conn.
YAKOUNTCHIKOFF.	H. E. B. Yakountchikoff, Petrograd.

The opportunity is here taken of sincerely thanking the directors of the above-mentioned public collections for sending me casts of the desired coins, also of thanking the private collectors for generously allowing me to look over their collections and to take impressions of such coins as were needed for this monograph.

<sup>2</sup> The number in parentheses following Glasgow denotes the number of this coin in Dr. G Macdonald's "Catalogue of the Greek Coins in the Hunterian Museum."

<sup>3</sup> The number in parentheses following Paris, Petrograd, Vienna, denotes the number given to this particular coin in these collections.

<sup>4</sup> The number in parentheses following Jameson denotes the number of this coin in the catalogue of his collection.

<sup>5</sup> The number in parentheses following Rouvier refers to his "Numismatique des Villes de la Phénicie," in *Jour. d'Arch. et Numis.* 4, 1901 and 5, 1902.



# THE DATED ALEXANDER COINAGE OF SIDON AND AKE

## SERIES I

### GROUP A.

Gold Distaters and Staters probably struck at Sidon.  
End of 333 — circa 330 B. C.

Symbol: WREATH.

#### 1. STATER. Type a.

Head of Athene r. with formal curls,  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  perpendicularly on l. necklace, and crested Corinthian helmet Winged Nike standing to l., holds wreath adorned with coiled serpent. in outstretched r., and standard in l.

A —  $\alpha$  Bunbury Sale (Sotheby, 1896, Plate VI, 750); London. Plate I, 1

#### Type b.

Similar, but hair falls loosely and there is a star within the serpent's coil. Similar.

B —  $\beta$  Berlin (Prokesch-Osten) gr. 8.60. Plate I, 2

#### Type c.

Head of Athene r. with formal curls, necklace, and triple-crested Corinthian helmet adorned with running griffin. "Eastern style." Similar. On this coin and the following Nike's hair is done up high on head.

C —  $\gamma$  Vienna, no. 10460. Plate I, 3

D —  $\delta$  E. T. N. gr. 8.45.

D —  $\epsilon$  London.

#### Type d.

Similar.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  in curved line on left.

D —  $\zeta$  London.

E —  $\zeta$  Berlin.

F —  $\eta$  E. T. N. gr. 8.52.

Plate I, 4

Symbol: KERYKEION.

#### 2. STATER.

Similar.

Similar. The crossbar of the standard on this and the following often adorned with minute winged Nikes.

G —  $\alpha$  Paris.

G —  $\beta$  Auction Sale Ratto, Milan 1911, no. 261.

H —  $\gamma$  London. Plate I, 5

H —  $\delta$  Petrograd (no. 252) gr. 8.46 ; Berlin.

H —  $\epsilon$  Munich.

Symbol : CLUB.

3. DISTATER.

Similar. Similar.

Serrure Sale (coll. H. de Morgan) March, 1914, no. 51, gr. 17.20. Plate I, 6

4. STATER.

Similar. Similar.

I —  $\alpha$  Beatty, gr. 8.51 ; Berlin. Plate I, 7

Symbol : STAR.

5. STATER.

Similar. Similar.

J —  $\alpha$  Berlin (Prokesch-Osten) ; London. Plate I, 8

J —  $\beta$  Paris, no. 329.

J —  $\gamma$  E. T. N., gr. 8.42.

Symbol: GRAIN OF WHEAT.

6. STATER.

Similar. Similar.

K —  $\alpha$  Berlin (Imhof-Blumer) Plate I, 9 ; Auction Sale, J. Hamburger (1908, Pl. III, 431), gr. 8.41.

Symbol : KANTHAROS.

7. STATER.

Similar. Similar.

L —  $\alpha$  Auction Sale (E. Bourgey, May, 1910, Pl. II, 66).

GROUP B.

Silver Tetradrachms and Bronze coins.

332 and 331 B. C.

TYPES.

TETRADRACHM.

Beardless head of Herakles to r., covered with lion's skin.<sup>6</sup> Circle of dots. ΑΛΕΞΑΝΔΡΟΥ on right. Zeus seated on throne, without back, to left. His feet rest on stool, his legs are parallel and are draped as far as waist leaving remainder of body nude. He holds eagle in extended r., sceptre in l. The whole in circle of dots. City initial in field, date beneath throne.

BRONZE.

Similar head of beardless Herakles to right. Bow and quiver to l. Below: Α]ΛΕΞΑΝΔΡΟΥ. Below, club to r. Below, Date.

<sup>6</sup> Müller's "style II." See L. Müller "Numismatique d'Alexandre le Grand."

## COINS.

333 to October 332 B. C.

Dated Year 1 (§).

8. TETRADRACHM. In field:  $\Gamma$ . Beneath throne:  $\Lambda$ .  
 I —  $\alpha$  E. T. N. gr. 17.17; E. T. N. gr. 17.16, Plate I, 10 (obverse); another, gr. 17.20; another, gr. 17.00.  
 $\beta$  E. T. N. (cleaned) gr. 16.80, Plate I, 11 (reverse); London<sup>7</sup>; E. T. N. gr. 17.20.  
 $\gamma$  Glasgow (Hunter no. 189, Pl. xxii, 2), gr. 17.19.  
 II<sup>8</sup>  $\gamma$  E. T. N. gr. 17.20, Plate I, 12; another, gr. 17.19; another, gr. 17.15.

October 332 to October 331 B. C.

Dated Year 2 (¤).

9. TETRADRACHM. In field:  $\Gamma$ . Beneath throne:  $\Omega$ .  
 III —  $\alpha^9$  E. T. N. gr. 17.17; another, gr. 17.15.  
 III —  $\beta$  Gotha. Plate I, 13; E. T. N. gr. 17.22; another, gr. 17.22; another, gr. 17.10.  
 III —  $\gamma^{10}$  E. T. N. gr. 17.14; another, gr. 17.02; another, gr. 17.12.

10. BRONZE. Below:  $\Omega$ .

E. T. N. gr. 1.64, Plate I, 14; another, gr. 2.25; Yale.

## SERIES II.

Between October 331 and October 327 B. C.

## TYPES.

## STATER.

Head of Athene r., with formal curls, necklace, and double crested Corinthian helmet adorned with running griffin.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on left. Winged Nike, draped, standing facing and regarding wreath which she holds in her outstretched r.; standard in l. Hair done up high on head.

## TETRADRACHM.

Head of beardless Herakles to r. similar in style and description to previous tetradrachms.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on right. Reverse type of same style and description as on previous tetradrachms.

<sup>7</sup> Another specimen in the British Museum shows no break on the reverse, which is therefore either from die  $\alpha$  or  $\gamma$ .

<sup>8</sup> This obverse die was soon sent to Ake and used for the first issue of that city's mint — q. v.

<sup>9</sup> Beneath the  $\Omega$  can be seen traces of the  $\Lambda$ , showing that this is an old die of the previous year recut for use in year 2.

<sup>10</sup> The  $\gamma$  on this die is very weak but faint traces of it can still be made out.

## OBOL.

Similar to above.

ΑΛΕΞΑΝΔΡΟΥ on right. Similar type to above. Right foot of Zeus drawn back behind the l.

## COINS.

No dates.

11. STATER. Filleted Palm branch, to r. of Nike.

M —  $\alpha$  Berlin (Prokesch-Osten) gr. 8.59.

Plate I, 15

12. STATER. Filleted Palm branch to l. of Nike.

N —  $\alpha$  O'Hagan Sale (Sotheby 1908), Pl. VI, 294.O —  $\beta$  Berlin, gr. 8.60.

Plate I, 16

O —  $\gamma$  Paris.

13. STATER. Filleted Palm branch to r. ; ΣΙ to l. of Nike.

P —  $\alpha$  London.P —  $\beta$  E. T. N. gr. 8.61.

Plate I, 17

14. STATER. Filleted Palm branch to l. ; Σ to r. of Nike.

P —  $\alpha$  Berlin, gr. 8.582 (Prokesch-Osten).

Plate I, 18

15. TETRADRACHM. Beneath throne : Σ.

IV —  $\alpha$  E. T. N. gr. 17.19, Plate I, 19 (obverse).V —  $\beta$  E. T. N. gr. 17.20, Plate I, 20 ; another (cleaned), gr. 16.87 ; another, gr. 17.10.VI —  $\gamma$  E. T. N. gr. 17.23 (formerly : Egger, sale of 1912, no. 672), Plate I, 21 ; R. Storrs ; E. T. N. gr. 17.12.VI —  $\delta$  E. T. N. gr. 17.15 ; another, gr. 17.02 ; another, gr. 17.16 (Amer. Jour. of Num., vol. XLVI, 2, 1912, Pl. 13, no. 5) ; R. Storrs.VI —  $\epsilon$  E. T. N. gr. 17.12.VI —  $\zeta$  E. T. N. gr. 17.12.VI —  $\zeta$  Commerce, 17.16 ; E. T. N. gr. 17.13 (obverse die has now become badly broken).VII —  $\eta$  E. T. N. gr. 17.18.VIII —  $\eta$  E. T. N. gr. 17.02, Plate I, 22 (obverse).IX —  $\gamma$  Berlin ; E. T. N. gr. 17.17 ; another, gr. 17.00.IX —  $\theta$  E. T. N. gr. 17.16 ; another, gr. 17.12 ; another, gr. 17.12.IX —  $\iota$  E. T. N. gr. 17.20 ; another, gr. 17.22 ; another, gr. 17.09 ; another, gr. 17.04.IX —  $\kappa$  London ; E. T. N. gr. 17.14 ; another, gr. 17.20.

Plate I, 23

16. TETRADRACHM. Beneath throne : ΣΙ.

X —  $\alpha$  E. T. N. gr. 17.18 ; another, gr. 17.14.

Plate I, 24

X— $\beta$  E. T. N. gr. 17.20 ; another, gr. 17.18 ; Commerce, gr. 17.23.

X— $\gamma$  E. T. N. gr. 17.10.

X— $\delta$  R. Storrs.

17. OBOL. In field :  $\Sigma$ l.

Paris, no. 1052 ; Berlin (Löbbecke coll.) ; Rouvier 1181 (two pieces) gr. 0.58 and 0.62, see Jour. Int. Num. d'Arch., vol. 5, 1902, Pl. 2 ; E. T. N. gr. 0.55.

Plate II, 4

18. TETRADRACHM. Ivy leaf in field ;  $\Sigma$ l beneath throne.

XI— $\alpha$  Berlin, gr. 17.07 (Prokesch-Osten) ; E. T. N. gr. 17.20 ; London ; E. T. N. gr. 17.16.

Plate II, 1

19. STATER. Filleted Palm branch on l. ; galley and  $\Sigma$ l on r. of Nike.

P— $\alpha$  London ; Berlin, gr. 8.55 (Prokesch-Osten).

Plate II, 2

20. TETRADRACHM. Galley in field ;  $\Sigma$ l beneath throne.

XI— $\alpha$  E. T. N. gr. 17.19.

Plate II, 3

### SERIES III.

Between October 327 and early part of 323 B. C.

#### TYPES.

##### STATER.

###### Type a.

Head of Athene to r., with flowing hair, necklace, and double crested Corinthian helmet adorned with coiled serpent.

###### Type b.

Head of Athene as above, but hair is in formal curls and she wears an ear-ring. The style is also much finer.

##### TETRADRACHM.

###### Type a.

Head of beardless Herakles of same style and description as heretofore.

###### Type b.<sup>11</sup>

Head of beardless Herakles r. in high relief and of finer style than the above. Circle of pearls.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Winged figure of Nike advancing towards l. Holds wreath in outstretched r. and standard in l.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Similar to above, but of finer style.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Zeus seated to l. as heretofore, with legs parallel.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Zeus, naked to waist seated l., head sometimes laureated, feet resting on stool, the r. leg drawn back behind the l. He holds eagle in extended r. and sceptre in l.

##### DRACHM.

Similar in type and style to preceding.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Similar in type and style to preceding.

<sup>11</sup> "Style IV" see Müller loc. cit.

## TRIOBOL.

Similar in type and style to preceding.

ΑΛΕΞΑΝΔΡΟΥ on r. Similar in type and style to preceding.

## BRONZE UNIT.

Similar in type and style to preceding.

Quiver and bow to r.; below: ΑΛΕΞΑΝΔΡΟΥ; below: club to l.

## BRONZE THIRD.

Similar in type and style to preceding.

Similar in type, style and inscription to preceding.

## COINS.

October 327 to October 326 B. C.

Dated year 7 (τ).

21. STATER. Filleted palm branch, Η and ΣΙ to l. of Nike.

Q — a Berlin, gr. 8.634 (Prokesch-Osten); London, Plate II, 5; Vienna (no. 10391, Saida find).

22. TETRADRACHM. Η in field, ΣΙ beneath throne.

XII. — a E. T. N. gr. 17.19, Plate II, 6; another, gr. 17.00.

XII — β E. T. N. gr. 16.95.

October 326 to October 325 B. C.

Dated year 8 (η).

23. STATER. Filleted palm branch, Η and ΣΙ to l. of Nike.

Q — a<sup>12</sup> Vienna, no. 10390 (Saida find); London, Plate II, 7; E. T. N. gr. 8.58; Berlin, gr. 8.60 (Prokesch-Osten).

24. TETRADRACHM. Η in field, ΣΙ beneath throne.

XII — a E. T. N. gr. 17.20.

Plate II, 8

October 325 to October 324 B. C.

Dated year 9 (ω).

25. STATER. Filleted palm branch, Ο and ΣΙ to l. of Nike.

Q — a Berlin, gr. 8.60 (Prokesch-Osten), Plate II, 9; Vienna, no. 10387 (Saida find); E. T. N. gr. 8.60; Commerce.

<sup>12</sup> This reverse die is the same as die ■ of no. 21 — but the date has been altered from τ to η. The die has become much worn and damaged by constant use. The obverse die, too, is beginning to show signs of wear.

26. TETRADRACHM. ♂ in field, ΣΙ beneath throne.  
 XIII —  $\alpha^{13}$  E. T. N. gr. 17.13 ; another, gr. 17.20, Plate II, 10 ; Berlin (Sperling Coll.).  
 Also in London and Paris.<sup>14</sup>

27. DRACHM. ♂ in field, ΣΙ beneath throne.  
 London ; Berlin, gr. 4.07 (Prokesch-Osten). Plate II, 11

28. TRIOBOL. ♂ in field, ΣΙ beneath throne.  
 Berlin, gr. 2.115 (Prokesch-Osten). Plate II, 12

29. BRONZE UNIT. No date, ΣΙ on reverse.  
 London ; Hunter Coll., no. 312, gr. 4.471 ; Paris, Plate II, 17 ; Rouvier, no. 1200, gr. 4.25 ; Berlin.

30. BRONZE THIRD. No date, ΣΙ on reverse.  
 Rouvier, no. 1201, gr. 1.65 ; London ; E. T. N. gr. 1.90. Plate II, 18

October 324 — early in 323 B. C.

Dated year 10 (').

31. STATER. Filleted palm branch, ΣΙ and ΣΙ to l. of Nike.  
 Q —  $\alpha$  London, Plate II, 13 ; Rouvier ("Sidon," no. 1171) ; Gotha, gr. 8.55 ; Petrograd (very worn) ; New York ; Commerce (five specimens) ; Hirsch Sale XXVI, no. 154 (also Merzbacher Sale, Nov., 1910, no. 389) ; Ratto Sale, 1911, no. 260 ; Cambridge (McClean), grains 132.5.  
 R —  $\beta$  E. T. N. gr. 8.59. Plate II, 14  
 S —  $\gamma$  Berlin, Plate II, 15 ; Petrograd (no. 150), gr. 8.58 ; E. T. N. gr. 8.52 ; Copenhagen ; Egger Sale XLI, Nov., 1912, no. 382 ; Brussels ; Montague Sale no. 116 (also Carfrae, 1894, no. 110).

32. TETRADRACHM. ΣΙ in field, ΣΙ beneath throne.  
 XIII —  $\alpha$  E. T. N. gr. 17.25, Plate II, 16 ; another, gr. 17.23 ; another, gr. 17.05 ; Vienna (no. 29621) ; R. Storrs.  
 XIII —  $\beta$  E. T. N. gr. 17.15 ; another, gr. 17.20.

<sup>13</sup> This obverse die probably broke shortly after being brought into use — at least I have never seen a perfect example.

<sup>14</sup> The London and Paris examples are marked in my notes as being both from the broken obverse die, — but as casts were not sent me of these two coins, I was unable to compare the reverse dies.

## SERIES IV.

Between middle of 323 B. C. and early part of 320 B. C.

## TYPES.

## STATER. Var. a.

Head of Athene r. with formal curls, necklace, and crested Corinthian helmet ornamented with coiled serpent. The serpent on two of the dies (V and W) used for years 10 (K) and 12 (M) is represented with two coils, the other dies show the single coil serpent.

## Var. b.

Similar head of Athene but with hair flying loosely.

## TETRADRACHM.

Young head of Herakles to r. covered with lion's skin. Circle of dots.

ΑΛΕΞΑΝΔΡΟΥ on r. Reverse die  $\alpha$  of year 10 (K) represents the Nike as before, that is as advancing rapidly towards l., her robes flying in the breeze. The remaining dies of this series show her either standing with robes at rest, or advancing slowly to l. The dates are expressed by Greek letters.

## OBOL.

Similar.

ΑΛΕΞΑΝΔΡΟΥ on r. Zeus naked to waist, with head sometimes laureated, feet crossed and resting on footstool. He holds eagle in outstretched r., and sceptre in l. Circle of dots. The dates are expressed in Greek letters.

ΑΛΕΞΑΝΔΡΟΥ on r. Similar to preceding in type and style.

## COINS.

Before October 323.

Dated year 10 (K).

## 33. STATER. K and ΣI in field to l.

S —  $\alpha$  Vienna (no. 10434); Gotha, gr. 8.50; Berlin, Plate II, 19; Paris; Yountchikoff, gr. 8.52; Commerce.

T —  $\alpha$  E. T. N. gr. 8.60 (formerly Egger Sale, Nov., 1913, no. 383), Plate II, 20  
U —  $\beta$  Naples (no. 6615). Plate II, 21

V —  $\gamma$  E. T. N. gr. 8.62, Plate II, 22; another, gr. 8.62; Petrograd (no. 72),  
worn 8.48.

## 34. TETRADRACHM. K in field, ΣI beneath throne.

XIV —  $\alpha$  London; E. T. N. gr. 17.20, Plate II, 23; Berlin; Vienna (10494).

XIV —  $\beta$  E. T. N. gr. 17.30; London.

XIV —  $\gamma$  Copenhagen.

October 323 — October 322.

No coins known of this year.

October 322 — October 321 B. C.

Dated year 12 (M).

35. STATER. M in field to l.

W —  $\alpha$  Hague ; E. T. N. gr. 8.59.W —  $\beta^{15}$  Berlin (Prokesch-Osten), gr. 8.595.X —  $\gamma$  Berlin, gr. 8.58.

Plate II, 24

Plate II, 25

36. TETRADRACHM. M in field to l,  $\xi$  beneath throne.XV —  $\alpha^{16}$  E. T. N. gr. 17.22 ; Paris (de Luynes, no. 917) ; London, Plate III, 1 ; Dattari.XV —  $\beta$  Berlin ; E. T. N. gr. 17.19.XV —  $\gamma$  Vienna (no. 9613).37. OBOL. M and  $\xi$  in field to l.

Berlin.

Plate II, 26

October 321 — middle of 320 B. C.

Dated year 13 (N).

38. STATER. N in field to l.

Y —  $\alpha$  Berlin (Prokesch-Osten), gr. 8.57 ; Egger Sale, Nov., 1913, no. 649, Plate III, 2 (obverse).Z —  $\alpha$  London.

Plate III, 3

Z —  $\beta$  Petrograd (no. 37), gr. 8.57.AA —  $\alpha$  E. T. N. gr. 8.58, Plate III, 4 ; Petrograd (no. 38), gr. 8.53.39. TETRADRACHM. N in field,  $\xi$  beneath throne.XV —  $\alpha$  E. T. N. gr. 17.19.XV —  $\beta$  Berlin ; Dattari ; E. T. N. gr. 17.19.XV —  $\gamma$  E. T. N. gr. 17.19, Plate III, 5 ; another, gr. 16.96.XV —  $\delta$  London ; Alexandria ; E. T. N. gr. 17.22.XVI —  $\epsilon$  Vienna (no. 29618).

Plate III, 6

XVII —  $\delta$  E. T. N. gr. 17.14.

<sup>15</sup> The extra mark: l, to be seen on the Berlin specimen beneath the right wing is not found on the reverse dies  $\alpha$  or  $\gamma$ .

<sup>16</sup> Rouvier has misread the N on his tetradrachm for an M. The coin is now to be placed under the following Series V, no. 41, which see.

## SERIES V.

Middle of 320 to October 317 B. C.

## TYPES.

## STATER.

Head of Athene similar in style and description to dies Y, Z and AA of previous group.  $\Phi\Lambda\Lambda\Gamma\Gamma\Omega\Upsilon$  on r. Winged Nike similar in style and description to stater no. 38.

## TETRADRACHM.

Head of Herakles similar in style and description to previous coins.  $\Phi\Lambda\Lambda\Gamma\Gamma\Omega\Upsilon$  on r. Zeus similar in style and description to previous coins, except that, henceforth, footstool is lacking.

## PENTOBOL.

Head of Herakles similar to that on tetradrachm.  $\Phi\Lambda\Lambda\Gamma\Gamma\Omega\Upsilon$  on r. Zeus similar to tetradrachm.

## COINS.

Before October 320 B. C.

Dated year 13 (N).

40. STATER. N in field to l.

BB — a Dresden, gr. 8.55.

Plate III, 7

41. TETRADRACHM. N in field, ΣΙ beneath throne.

XVII — a E. T. N. gr. 17.12, Plate III, 8; Alexandria.

XVII — β Rouvier (no. 1203), gr. 17.00.

XVIII — γ Vienna (no. 10741).

Plate III, 9

XVIII — δ E. T. N. gr. 17.03; Dattari.

XIX — ε Berlin.

Plate III, 10

XIX — f Rouvier (no. 1202 where date has been misread).

October 320 — October 319 B. C.

Dated year 14 (Ξ).

42. STATER. Ξ in field to l.

BB — a London.

Plate III, 11

CC — β London, Plate III, 12; Berlin; Petrograd.

43. TETRADRACHM. Ξ in field, ΣΙ beneath throne.

XIX — a<sup>17</sup> E. T. N. gr. 17.11.

Plate III, 13

XX — β E. T. N. (cleaned) gr. 17.05, Plate III, 14 (obverse).

44. PENTOBOL. Ξ in field, ΣΙ beneath throne.

E. T. N. gr. 3.22.

Plate III, 15

<sup>17</sup> This reverse die is the same die as f of year N but with the N erased and Ξ substituted. The die shows signs of considerable wear.

October 319 — October 318.

Dated year 15 (O).

45. TETRADRACHM. O in field, ΣΙ beneath throne.

XX —  $\alpha$  Munich.

Plate III, 16

XX —  $\beta$  Berlin.XXI —  $\gamma$  Vienna (no. 29670); E. T. N. (worn) gr. 16.57.

Plate III, 17

XXI —  $\delta$  E. T. N. gr. 17.23.

Plate III, 18

XXII —  $\epsilon$  London.XXIII —  $\zeta$  Rouvier (1204), gr. 17.00, Plate III, 19; Alexandria.

October 318 — October 317.

Dated year 16 (Γ).

46. STATER. Π in field to l.

CC —  $\alpha$  E. T. N. gr. 8.59 (formerly Ratto Sale, May, 1912, no. 641). Plate III, 20

47. TETRADRACHM. Π in field, ΣΙ beneath throne.

XXIII —  $\alpha$  Vienna (no. 29677).

Plate III, 21

XXIV —  $\beta$  London, Plate III, 22; Rouvier, (1205), gr. 17.00; E. T. N. gr. 16.995; Hague (much worn).

## SERIES VI.

End of 317 to October 309 B. C.

## TYPES.

## STATER.

For first issues of year 18 (Σ) head of Athene of same style and description as the foregoing stater except that serpent has two coils.

For remaining issues of year 18 (Σ) and for all the following issues Athene's hair is again arranged in formal curls and the helmet ornament is once more a running griffin.

## TETRADRACHM.

Head of Herakles as on previous tetradrachms.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike of same style and description as on preceding stater.

ΑΛΕΞΑΝΔΡΟΥ on r. Zeus enthroned to l.; of same style and description as on previous tetradrachms.

THE DATED ALEXANDER COINAGE OF SIDON AND AKE  
COINS.

End of 317 to October 316 B. C.

Dated year 17 (P).

48. TETRADRACHM. P in field, ΣΙ beneath throne.  
XXV —  $\alpha$  Rouvier (no. 1189), gr. 17.12.

Plate IV, 1

October 316 to October 315 B. C.

Dated year 18 (Ξ).

49. STATER. Σ in field to l.

CC —  $\alpha$  London.

Plate IV, 2

DD —  $\beta$  London, Plate IV, 3 (obverse).

DD —  $\gamma$  London.

EE —  $\delta$  Berlin, gr. 8.57.

Plate IV, 4

50. TETRADRACHM. Σ in field, ΣΙ beneath throne.

XXVI —  $\alpha$  Vienna (no. 29617), Plate IV, 5 (obverse).

XXVII —  $\beta$  London, Plate IV, 6 ; E. T. N. gr. 17.11.

XXVII —  $\gamma$  Berlin.

XXVII —  $\delta$  Cambridge (McClean Coll.), gr. 16.67.

XXVIII —  $\gamma$  Berlin.

Plate IV, 7

XXVIII —  $\epsilon$  Rouvier (no. 1190), gr. 16.90.

October 315 to October 314 B. C.

Dated year 19 (Τ).

51. STATER. Τ in field to left.

FF —  $\alpha$  London, Plate IV, 8 (obverse) ; London (another, reverse double struck) ; Petrograd (no. 241), gr. 8.51.

GG —  $\beta$  Petrograd (no. 240) gr. 8.57, Plate IV, 9 ; E. T. N. gr. 8.62 ; London.

HH —  $\beta$  Berlin (Prokesch-Osten), gr. 8.575.

Plate IV, 10

52. TETRADRACHM.<sup>18</sup>

October 314 to October 313 B. C.

Dated year 20 (Υ).

53. STATER.<sup>19</sup> Υ in field to left.

54. TETRADRACHM. Υ in field, ΣΙ beneath throne.

XXVIII —  $\alpha$  Berlin.

Plate IV, 11

XXIX —  $\beta$  London ; Copenhagen, Plate IV, 12 ; Hague.

<sup>18</sup> No tetradrachms for this year have as yet been found, but as the issue of staters dated Τ seems to have been plentiful, there probably were also tetradrachms.

<sup>19</sup> Though no stater of this date is now known, this denomination must have existed, as we know that a reverse die was cut for the year 20 (Τ). This die in the following year was altered by engraving Φ over Υ (see 55, II, a).

October 313 to October 312 B. C.

Dated year 21 (Φ).

55. STATER. Φ in field to left.

II —  $\alpha$  Berlin (Prokesch-Osten), gr. 8.55 ; London.

Plate IV, 13

56. TETRADRACHM. Φ in field, ΣΙ beneath throne.

XXIX —  $\alpha$  Rouvier (no. 1192), gr. 17.10.

Plate IV, 14

XXX —  $\beta$  Alexandria.

Plate IV, 15

October 312 to October 311 B. C.

Dated year 22 (Χ).

57. TETRADRACHM. Χ in field, ΣΙ beneath throne.

XXX —  $\alpha$  Davidson.

Plate IV, 16

October 311 to October 310 B. C.

Dated year 23 (Υ).

58. STATER. Υ in field to left.

II —  $\alpha$  London, Plate IV, 17 ; Berlin<sup>20</sup> (Prokesch-Osten), gr. 8.63.

59. TETRADRACHM. Υ in field, ΣΙ beneath throne.

XXXI —  $\alpha$  Vienna (no. 29619) ; E. T. N. (worn), gr. 16.71 ; Rouvier (no. 1193), gr. 17.22, Plate IV, 18.XXXI —  $\beta$  Berlin.

October 310 to October 309 B. C.

Dated year 24 (Ω).

60. TETRADRACHM. Ω in field, ΣΙ beneath throne.

XXXII —  $\alpha$  Vienna (no. 29620), Plate IV, 19 ; Rouvier (no. 1194), gr. 17.20.XXXII —  $\beta$  Rouvier.<sup>21</sup>

## SERIES VII

October 309 to October 305 B. C.

## TYPES.

## STATER.

Head of Athene to r. with formal curls and necklace, with double-crested Corinthian helmet ornamented with griffin. Same style as previous staters.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike of same style and description as on previous staters.

<sup>20</sup> According to my notes this coin is certainly in Berlin, but by an oversight no casts of it were sent me.

<sup>21</sup> In Dr. Rouvier's collection among uncertain dates of Sidon.

## TETRADRACHM.

Head of Herakles of same style as on previous tetradrachms. ΑΛΕΞΑΝΔΡΟΥ on r. Zeus enthroned, of same style and description as on previous tetradrachms.

## COINS.

October 309 to October 308 B.C.

Dated year 1 (A).

61. STATER.  $\text{M}$  and  $\text{A}$  on left.JJ —  $\alpha$  Paris ; London.

Plate IV, 20

62. STATER.  $\text{A}$  on left,  $\text{M}$  on right.

Prokesch-Osten (now Berlin ?).

63. TETRADRACHM.  $\text{M}$  in field,  $\text{ΣΙ}$  beneath throne.XXXII —  $\alpha$  Berlin.

Plate IV, 21

64. TETRADRACHM.  $\text{M}$  in field,  $\text{ΣΙ}$  beneath throne.XXXII —  $\beta$  Vienna (no. 29615).

Plate IV, 22

65. TETRADRACHM.  $\text{M}$  in field,  $\text{ΣΙ}$  beneath throne.XXXII —  $\gamma$  Vienna (no. 29614).XXXII —  $\delta$  E. T. N. gr. 17.24, Plate V, 1 ; Munich (obverse and reverse double struck) ; Rouvier (no. 1185), gr. 17.10.XXXIII —  $\epsilon$  Vienna (no. 10495).

Plate V, 2

October 308 to October 307 B.C.

Dated Year 2 (B).

66. TETRADRACHM.  $\text{B}$  in field,  $\text{ΣΙ}$  beneath throne.XXXIII —  $\alpha$  Berlin ; Munich.

Plate V, 3

67. TETRADRACHM.  $\text{B}$  in field,  $\text{ΣΙ}$  beneath throne.XXXII —  $\alpha$  Vienna (no. 29616).

Plate V, 4

XXXIII —  $\alpha$  E. T. N. gr. 17.07.

Plate V, 5

October 307 — October 306 B.C.

Dated Year 3 ( $\Gamma$ ).68. TETRADRACHM.  $\text{M}$  in field,  $\text{ΣΙ}$  beneath throne.XXXIII —  $\alpha$  Berlin.

Plate V, 6

October 306 to October 305 B. C.

Dated year 4 (Δ).

69. TETRADRACHM.  $\overset{\Delta}{M}$  in field, ΣΙ beneath throne.

XXXIII — a Berlin, Plate V, 7; Rouvier (no. 1187), gr. 17.05; E. T. N. gr. 17.15.

70. TETRADRACHM.  $\overset{\Delta}{M}$  in field, ΣΙ beneath throne.

XXXIII — a E. T. N. gr. 17.11, Plate V, 8 (reverse).

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### SERIES I.

End of 333 to October 331 B. C.

In the Autumn of 333 B. C.,<sup>22</sup> on the plains of Issos, Alexander the Great signally defeated the Persian forces under the personal command of Darius III, and by this victory became the arbiter of the western portion of the Persian Empire including Syria, Phoenicia, and Palestine. The rich and populous city-states of the Phoenician coast immediately sent embassies offering their submission to the victor and their liberator from the hated Persian yoke.<sup>23</sup> Alexander's progress southwards along the coast was in the nature of a triumphal procession as city after city threw open its gates to its new suzerain. Among others, the powerful city of Sidon welcomed him with open arms. Stratton at this time was the Sidonian king,<sup>24</sup> but shortly after Alexander's arrival he was declared deposed and a certain Abdalominos (or Abdalonimos), remotely related to the royal family, ruled in his stead.

From Sidon Alexander proceeded southwards towards Tyre where he had the intention of offering sacrifice in the great temple of the Tyrian Herakles.<sup>25</sup> But while the Tyrians were willing enough to accept the new power and, furthermore, were anxious to remain at peace, they feared to see the Macedonians within the city walls and did all in their power to persuade Alexander to remain on the mainland. When persuasion could not turn him from his purpose they dared all and refused him admission to the city. Alexander could neither submit to such defiance so early in his career of conquest nor could he overlook the vital strategical importance of the city's position. A hostile Tyre might well prove fatal to his further projects. He at once invested the city and commenced the famous siege destined to last through

<sup>22</sup> Arrian II, 11, "month of Maimakterion when Nikokrates was archon of the Athenians" — end of October or beginning of November 333.

<sup>23</sup> Arrian II, 13-15.

<sup>24</sup> Curtius IV, 3-4.

<sup>25</sup> Arrian II, 15, 16.

seven terrible months<sup>26</sup> and finally to end in the capture and destruction of this powerful and wealthy metropolis. During the siege the friendly city of Sidon, not ill-pleased at the predicament of its ancient rival, was used by the Macedonian army as a very convenient base.<sup>27</sup> The Sidonian fleet also rendered invaluable service by coping with the daring and agile Tyrian ships which at times nearly proved the undoing of the besiegers.

The fall of Tyre was succeeded by the siege and capture of Gaza and Alexander's expedition into Egypt. In the Spring of 331 B. C.<sup>28</sup> he returned to Phoenicia and soon after proceeded eastwards with his army to Thapsakos. With his departure the history of the Phoenician cities sinks into obscurity for upwards of nine years, until the story shifts westwards again after Alexander's death. It is during the interminable wars waged by his generals and successors for the possession of Syria and Phoenicia that we gain an idea of the vital importance of these lands to prospective rulers of the eastern Mediterranean.

At the time of Alexander's invasion of Asia the currency in the East consisted, in the main, of Persian gold darics and silver sigloi and Athenian tetradrachms. Two of these—the gold darics and the Athenian tetradrachms—had for the last hundred and fifty years enjoyed a world-wide circulation and were well known and acceptable to Alexander's soldiers. It is probable, therefore, that during his campaigns, from the battle of the Granikos to the invasion of India, for the pay of his troops he relied principally upon the fabulous hoards of wealth which had been stored away by the Persian monarchs and which now fell into his hands. Even so, it seems but natural that he would issue coins bearing his own name and types to take the place, as soon as possible, of a coinage belonging to a fast vanishing dynasty and empire. In fact his own coinage had by this time already begun to appear in Macedonia, Thrace, and possibly Asia Minor. Facilities lay conveniently close at hand for him to issue his own coins nearer to the scenes of his immediate operations. His arrival and overthrow of the Persian power had interrupted the activities of the satrapal mints in Cilicia and the autonomous mints of Arados, Byblos, Sidon, Tyre, and Gaza. Here, then, in busy commercial centres and at important and convenient points Alexander had all the needed facilities—mints, appliances, and workmen—for an immediate issue of his own coins. That he made use, and at once, of these facilities the actual coins that have come down to us clearly show.<sup>29</sup> Within a very short time coins bearing his name and types appear at various mints in Cilicia, at

<sup>26</sup> Arrian II, 24. The city fell in the month Hekatombion of 332 B. C., i. e. end of July and beginning of August.

<sup>27</sup> Arrian II, 19, 20.

<sup>28</sup> Arrian III, 6.

<sup>29</sup> Müller, nos. 1282, 1283, 1284, 1291, 1292, 1293, 1298, 1302, 1337, 1367, 1368.

Arados, Byblos, and at Sidon. It is indeed most natural that Alexander should have made great use of the Sidonian mint. Aside from the fact that from 475 B. C., down to the appearance of the Greeks before its walls, Sidon had issued a very prolific coinage and was therefore in possession of a well established mint and all requirements for an early issue of coin, in addition, it formed the principal base for the operations against Tyre. While large sums of money — more than enough to pay the soldiers for the present — had been captured from the Persians at the battle of Issos<sup>30</sup> and, later, at Damaskos, Alexander would not delay the appearance of a coinage bearing his own name and types. This in ancient, and to a less degree in modern times, formed a means of bringing before the public the actual fact of sovereignty, and would hardly be overlooked by Alexander in his new possessions. We see therefore that the necessities of the case, the proximity and facilities of the Sidonian mint, the opportunity presented by the stay before Tyre, would all combine to bring about a large issue of coin at Sidon during the year 333-332 B. C. Once started, the activities of this convenient mint would not be discontinued during Alexander's stay in Phoenicia and Egypt, in other words, till he left for the East in the Spring of 331 B. C. Which, then, are the coins that should be attributed to the Sidonian mint for this period of the Tyrian siege and the Egyptian expedition?

The attribution of the silver tetradrachms nos. 8 and 9 to this time and mint is certain. They are most conveniently dated **א** and **ב** in Phoenician letters (years 1 and 2 of Alexander's era inaugurated by the battle of Issos, or of the reign of the local king Abdalonimos) — that is 333-332 and 332-331 B. C.; and are also provided with the indication of the mint in the shape of the Phoenician letter **ו** — the initial of the city's name **וְסִדּוֹן**.

That Alexander would content himself with issuing only silver coins is not likely, when gold staters, to take the place of the usual darics, was almost a "sine qua non". These staters are represented by nos. 1 to 7 of our catalogue (plate I). Though not specially marked to indicate the mint of Sidon, the group in question fills the requirements of such an attribution in every particular. The staters were struck during Alexander's lifetime,<sup>31</sup> early in his reign to judge by the style alone. They form a clearly defined group, remarkable for peculiarity of style and identity of workmanship.<sup>32</sup> In fact, it

<sup>30</sup> Arrian II, 11, at Issos 3000 talents; a still larger amount at Damaskos.

<sup>31</sup> All the varieties were present in the Saida hoard buried, as we shall see later, between 323 and 320 B. C.

<sup>32</sup> The Athena-heads of 1a and 1b (plate I, 1 and 2) were evidently copied from certain Athena-heads on staters of early Macedonian issues. These copies are from the hands of an eastern artist, as the style shows, probably the same person who cut the reverse dies. The remaining Athena heads are original conceptions, but connected with the former by the similar style and symbol of the reverse dies.

would not be too much to say that their dies came from the hands of not more than one or two die-sinkers. It is all but certain that they were issued in one place and over a comparatively short space of time. Above all, this same peculiarity of style (of both obverse and reverse) is directly continued<sup>33</sup> on staters<sup>34</sup> which by their inscriptions and symbols we know *certainly* to have been struck in Sidon not later than 328/327 B. C. They have, also, long been recognized to be of Eastern, preferably Phoenician origin.<sup>35</sup> But of the many important towns and cities dotted along the Phoenician coast, Sidon is the only suitable mint-place for our group of staters. Arados at about this time was issuing an Alexander stater, but of such an entirely different style that it could not be connected with the foregoing staters; Tripolis and Berytos had had no previous mint, and it is furthermore most doubtful if any of these two mints ever struck any Alexander coins whatsoever, as they played but a secondary part in the great conqueror's history; Tyre and Gaza need not be considered as, after their defiance, they were taken and destroyed; Ake and Byblos struck staters at this time, but they were merely rather poor copies of the Sidonian prototypes. If further proof were needed that these staters were of Phoenician and so, almost certainly, of Sidonian origin, we would have it in the significant fact that they were struck from *adjusted*<sup>36</sup> dies — at this early time an unusual procedure but one which had long been in use at Sidon, and which was continued throughout the issue of Alexander coins from this mint.

We have mentioned above the distinctive appearance of these staters when compared with the issues of the European mints. On nos. 1a and 1b, to be sure, we see the serpent-adorned helmet of the Macedonian prototypes, but the style and workmanship is Eastern, while on no. 1b an innovation is introduced by placing a star<sup>37</sup> within the serpent's coil. With no. 1c and following, the Sidonian die-cutter gives us a more original conception. The head is small, the features very Eastern in type, the Corinthian helmet is adorned with a triple horse-hair crest, while a running griffin takes the place of the usual serpent. This griffin henceforth continues to appear throughout the dated issues of both Sidon and Ake — though alternating, at times, with the serpent. In art the griffin was commonly used as an ornament for helmets, shields, cuirasses, and other pieces of armor as early as the fifth

<sup>33</sup> At the first glance the obverses of Plate I, 9 and of O'Hagan Sale (Sotheby, 1908) Plate VI, 294 (undoubtedly struck in Sidon) appear to be from the same die — at any rate the two dies would seem to have been cut by the same hand.

<sup>34</sup> Nos. 11, 12, 13, 14, 19.

<sup>35</sup> Prokesch-Osten in *Num. Zeitschr.*, Vienna, Vol. III, 1871, pp. 52, 53.

<sup>36</sup> A custom first used in Phoenician coinages but very rarely found among Greek currencies before 300 B. C.

<sup>37</sup> In this case the star is probably purely of symbolic significance.

century B. C. On coins we often see it adorning the helmet of Athena. Was there some reason why the Phoenician artist should have chosen the griffin? The griffin is, indeed, pre-eminently an Eastern conception, drawn from thence by the Greeks themselves. As a combination of the eagle and of the lion — each the fiercest and strongest of its kind — it was symbolic of irresistible might or supernatural power. Both lion and eagle-headed griffins occur repeatedly in Babylonian, Hittite, and Assyrian art as demonic forces or as companions of the gods. In Persian art the griffin is usually seen in deadly combat with the king. The ancient Egyptians represented the griffin with a hawk's head and lion's body; in this case it was symbolic of the king and as such found its way into Phoenicia. In placing this fierce monster upon the warrior-goddess' helmet the Sidonian artist may have wished to suggest the irresistible impetus of the Greek advance; or, perhaps, to symbolize the East now conquered by Athene's aid. It is a curious coincidence that the griffin should thus appear on the *gold* coins, as in Greek mythology the race of griffins — *χρυσοφύλακες* as they were called — were conceived of as fierce guardians of the gold hidden away in distant lands. Finally, in any case, both serpent and griffin may be conceived as having a certain symbolic significance; for the serpent is the well known symbol of longevity, the griffin of eternity. The constant interchange of these two emblems on the staters of Alexander the Great would therefore be natural, as they imply the more or less identical ideas: longevity and eternity.

From the very commencement the style, design, and technique of the reverses of these staters is abnormal and serves to bind together the entire series in spite of the divergence in style of the obverses of nos. 1a and 1b. While the Macedonian issues invariably have the inscription: ΑΛΕΞΑΝΔΡΟΥ to the right of Nike — that is *behind* her — these Sidonian staters have the inscription on the left — that is in *front* of Nike. Why? Perhaps this may be a mere coincidence, more likely, however, it was intentional. For with the laurel wreath in her outstretched right, Nike crowns the conqueror's name. The recent astounding victories of Alexander over the immense armies of the Great King must have been most impressive to these Phoenicians whose ancestors had so often in vain tried to throw off the Persian yoke. Even now many a Sidonian could remember the terrible vengeance inflicted on the city by Artaxerxes Ochus not twenty years previous. Intentional must also be the minute victories decorating the standard carried by Nike on the majority of these staters. They no doubt commemorate the victory over the Tyrian ships and the signal services rendered the Greeks by the Sidonian and other Phoenician and Cypriote fleets during the siege.<sup>38</sup>

<sup>38</sup> Arrian II, 22.

The symbols: WREATH, KERYKEION, GRAIN OF WHEAT, CLUB, STAR, KANTHAROS, to be found in the fields of these staters, were evidently private marks of the magistrates or officers responsible for the coinage. As the symbols are purely Greek in character, and do not occur on the Sidonian coins before or after this time,<sup>39</sup> their owners were probably also Greeks appointed by Alexander to superintend the coinage. The issue was therefore of "imperial" character and struck on behalf of the Macedonian war-chest.

In the silver tetradrachms<sup>40</sup> of Series I, group B, we have a coinage of a somewhat different character. The Phoenician letter **ש** (the initial of the name Sidon שִׁׁדּוֹן) would seem to designate these coins as a local rather than an "imperial" issue. The **ש** (no. 8) and the **ב** (no. 9) beneath the throne are no doubt regnal years, following a time-honored custom of the Sidonian mint: the dating of its coinage by the regnal years of the ruling monarch, be he local king or Persian overlord. Up till now these dates were expressed numerically: I for 1, II for 2 and so on; but henceforth, throughout the Alexander coinage, they are expressed alphabetically, at first by Phoenician, later by Greek letters. Whether these two dates, **ש** and **ב**, should be taken as referring to the Era of Alexander (commenced for Phoenicia by the battle of Issos) or to the regnal years of Abdalonimos (raised to the throne of Sidon by Alexander on his arrival) it would perhaps be difficult to determine. A lengthy discussion would, however, be rather useless, as it amounts to the same thing whether we take Alexander's or Abdalonimos' era, as the first years of each are conterminous.

## SERIES II.

Between October 331 and end of 327 B. C.

This issue was composed of gold staters and silver tetradrachms and obols. It covered, as the style and sequence of dies shows, the gap of four years existing between the two series of dated coins of Sidon (the dates 1, 7,

<sup>39</sup> The staters published by Müller (nos. 1414–1418), with the symbol star, and attributed by him to Sidon were in reality struck at Sinope in Paphlagonia. The same applies to Hill, *Nomisma* IV, 1909, nos. 37–54.

<sup>40</sup> In a previous monograph (Amer. Jour. of Num., Vol. XLVI, 1912, pp. 40, 44, 45) nos. 8 and 9 were attributed to Ake because the obverse die II was used for undoubted issues of that city. If, however, we carefully study the style of the reverses of Ake we will see that it is entirely different from that of the two coins (8 and 9) which we now give to Sidon. In addition, the style of these two is followed closely on the succeeding Sidonian issues with Σ and ΣΙ (nos. 15 and 16). The continuity of style is too marked to be ignored, and when this is coupled with the letter γ in the field of 8 and 9 the attribution seems certain. Furthermore, the style of obverse die II (now in Ake) is never again followed at Sidon *but is at Ake* (and closely too); while the style of die I proceeds through dies III (no. 9), IV (no. 15) and following, which certainly belong to Sidon.

נ and י not being represented). The gold staters nos. 11, 12, 13, 14, and 19 are closely modeled on those of Series I, group A, but seem to be more of a local issue than their predecessors. They are fewer in number and bear, one and all, a palm branch as a symbol which continues to appear on the staters throughout the following four years (dated 7, 8, 9, and 10) 327-323 B. C. In addition, these staters are marked ס and סל, making their attribution to Sidon unassailable. On no. 19 there appears, as an additional symbol, a Phoenician galley identical in form with the gallies which for so long a time formed the reverse type of the Sidonian coinage under Persian dominion.

The tetradrachms bear the ס and סל, but not the palm branch, of the accompanying staters. On no. 18, though, we see an ivy leaf (a corresponding stater has not yet been found) while on no. 20 we see the galley of the stater no. 19. By style these two tetradrachms are to be placed immediately before the reintroduction of the Phoenician alphabetical dates of Series III.

The obol, no. 17, probably on account of its minuteness, has the mint initials סל in the field instead of under the throne. This has been the cause of the attribution to Sidon of a certain tetradrachm (Müller no. 1397), also with סל in the field, but which does not fit in, in any way, with the remainder of the Sidonian coins. All the known examples of this variety are purely Macedonian in style and fabric. They are also invariably struck from *loose* dies — a fact absolutely fatal to their supposed Sidonian origin. Thus far all our coins are from adjusted dies as had been the custom of this mint from the earliest times. On the staters of Series I the reverse dies have the relation ↑ and ↓ to the obverses, on the tetradrachms of the same series it is ↑ and ↘ for year נ, ↓ and ↘ for year ס; on the staters and tetradrachms of Series II it is ↑ and ↓ with the latter position predominating.

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### SERIES III.

Between October 327 and early part of 323 B. C.

With Series III the dated issues of Sidon recommence after a lapse of four years. It has been established by Dr. Jules Rouvier and Mr. G. F. Hill<sup>41</sup> that the dates which these coins bear undoubtedly refer to the Era of Alexander the Great in Phoenicia. This era takes its start from the battle of Issos 333 B. C. by which victory Alexander became the ruler of the Syro-Phoenician coast in place of the defeated Persian king. Following the Mace-

<sup>41</sup> Dr. J. Rouvier, Rev. Num., 1903, p. 240. G. F. Hill, "Notes on the Alexandrine Coinage of Phoenicia," in Nomisma IV, 1909, where he, for the first time, calls attention to the Phoenician letter-dates.

donian custom, however, the year was reckoned from the 1st of October preceding the battle — which really took place a month later, about the 1st of November.

The issue, which lasted for about four years, presents us with gold staters; silver tetradrachms, drachms, and triobols; and two denominations in bronze. The dates are represented alphabetically by the Phoenician letters ፩, ፪, ፫, ፬ (that is 7, 8, 9, 10), corresponding to the years October 327 to 323 B. C. In first publishing these Phoenician letter-dates Mr. Hill read ፬ (10) as ፫ (11), and for the 10th year gives the Greek letter Κ. While admitting that the form ፩ is very near to the usual form of ፫ it seems inexplicable why the Sidonian mint-authorities should in the 10th year discard the Phoenician system for the Greek, then revert to Phoenician for year 11, only to return to the Greek in year 12. Is ፩ therefor really ፫? In comparing the careful alphabetical tables of Cooke "North Semitic Inscriptions," Plate XII, we find a form ፩ used at Carthage for ፬ which is almost identical with the letter on our coins. It must therefore be simply a slight variant of the more usual ፩, ፪, ፫, forms for ፬. Moreover, the coins (tetradrachms) themselves prove this reading, for the obverse die of the ፬ (year 10) coins is the one cut and used for the year 9; on the other hand, the style of the obverse die of the Greek letter Κ coins is much closer to the Μ coins. The gold staters are even more explicit, for obverse die Κ was used continuously through the years ፩, ፪, ፫ and into the first part of ፬ when it broke and another of quite a different style was substituted. This latter then continued in use for the Κ coins *but shows distinct signs of wear* proving that the ፩ coins *preceded* the Κ coins and so could only belong to the 10th year.

The obverse die Κ, cut for the issue of dated staters, discards the griffin and returns to the serpent ornament on Athene's helmet. It is also interesting to note that this same die Κ stood the wear and tear of four years hard usage, the effects of which can well be seen on the obverse, Plate II, no. 13. The gold coinage of this year must have been exceptional, as two new dies were cut (R and S) for the ፬ issue and, in addition, three more (T, U, V) for the ensuing Κ issue — all struck, as their dates indicate, between October of 324 and October of 323 B. C. Die S is a fine example of Greek workmanship. The style displayed on the reverse of this issue is much improved over that of Series II. The winged Nike is represented as flying towards the left, her garments fluttering in the breeze caused by her rapid flight, — a very graceful conception, particularly well carried out on die γ of no. 31. In addition to the dates, the filleted palm branch and the city's initials are found in the field. The inscription ΑΛΕΞΑΝΔΡΟΥ is always on the right, behind Nike.

The tetradrachms give us a similar set of dates as the gold, but lack the palm branch symbol. In the 9th year a new style was introduced modeled on certain contemporary tetradrachms of the Egyptian mint. This style is from now on adhered to throughout the issue of dated tetradrachms from the Sidonian mint.

The bronze coins, though not bearing dates, must, on account of their style, belong to about this time and series. Dr. Rouvier calls them hemi-chalkos and lepton, which they may very well be, but as our knowledge of the denominations of ancient Greek bronze coins is still in its infancy, the two coins are here simply designated as unit and third.

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#### SERIES IV.

Middle of 323 to middle of 320 B. C.

With the return of Alexander to Babylon after his Indian campaigns, our historical notices of the "West-land"<sup>42</sup> commence once more. Thus we learn that commands were sent to the Phoenician cities to build a fleet which was to be transported overland to Thapsakos on the Euphrates, here to be put together again, and then to sail down the Euphrates to Babylon where the king was assembling mighty forces. For he intended to subdue, once for all, the turbulent Arabian tribes, to plant colonies along the coasts of the Persian Sea and so open up the trade of the South and East, of Arabia and the Indies. The intractable and robber Bedouin tribes who infested the lands lying between Babylonia and the Phoenician and Palestinian coasts were also to be subdued, Petra was to be seized, and the Northern shores of the Red Sea colonized — thus opening a much shorter trade route between Babylonia, Phoenicia, and Egypt, a route hitherto made too dangerous by these robber tribes. This much for immediate plans, but we know that further and greater projects were at the same time being evolved in the restless and insatiable mind of the conqueror.

By the Spring<sup>43</sup> of 323 B. C. the desired ships had arrived at Babylon. At the same time large numbers of carpenters, sailors, merchants, peddlers of every description were coming overland from Phoenicia to be present at the opening of the new trade routes — for profits promised to be great. A certain Mikalos was also sent, at this time, with five hundred talents to Phoenicia and Syria to hire as many sailors and seamen as possible.

On June 11, 323 B. C.,<sup>44</sup> Alexander's sudden death intervened and put an immediate end to these preparations. There is no need to speak here of the

<sup>42</sup> Ancient Summernian name for Syria and Phoenicia.

<sup>43</sup> Droysen I, 2, 325.

<sup>44</sup> Arrian VII, 26.

dread suspense which followed this catastrophe, of the hurried councils of the generals, of the uprising of the soldiers, of the fears and doubts that assailed Greeks and Orientals alike now that the only man who could rule the mighty empire he had built was thus suddenly taken away. In the end, however, Philip Arrhidaios was hailed as king, while it was decided that the expected child of Roxana, if a boy, should also be king, and that Perdikkas should be regent of the Empire.<sup>45</sup> The other important generals and personages of the court also received various appointments: among them Ptolemy, the Satrapy of Egypt; Laomedon, Syria this side of the Euphrates, including Phoenicia; Philotas, the Satrapy of Cilicia.

The year 322 was passed by Perdikkas in subduing Cappadocia and Pisidia. Already misunderstandings, suspicions and mutual jealousies were arising between the various generals and satraps of the now practically kingless<sup>46</sup> and unwieldy Empire. It was not long before these misunderstandings came to a head, particularly between Perdikkas and Ptolemy, the latter powerful in his rich and easily defended Satrapy on the Nile. There is little need here of going into the actual and pretended causes of the ensuing war. Suffice it to say that with the beginning of Spring 321 B. C., Perdikkas left his winter quarters in Pisidia and Cilicia and advanced southwards with his army by way of Damaskos upon Egypt. Attalos with the fleet, was to join the army at Pelusion, Egypt's frontier fortress, behind whose well-planned lines Ptolemy was awaiting his aggressor. In the ensuing battles Perdikkas' advance was checked, his attack on Camel's Fort failed miserably, his men mutinied, and he himself was finally murdered in his own tent. An armistice followed and, at Ptolemy's suggestion, Arrabaios and Peithon were elected to the regency of the Empire. These, thereupon, called a meeting of the Satraps to be held at Triparadeisos and led the army back into Syria. Very soon, however, they found their exalted position intolerable and abdicated, Antipater becoming regent instead. At the meeting of Triparadeisos in the Autumn of 321, Ptolemy was confirmed in his Satrapy of Egypt, Laomedon of Syria, but Philoxenos was appointed the Satrap of Cilicia. Antipater returned to Macedonia with the two kings, Philip Arrhidaios and the young Alexander; Antigonos to Asia Minor where he soon became engaged in fighting the remainder of Perdikkas' party. Ptolemy, perceiving his hands thus free, decided to increase his power by seizing Syria, a country of great strategical importance to Egypt, whence he could draw materials and men for the fleet and where he would be in a commanding position against both West and East. In the Spring and Summer of 320 his army invaded Pales-

<sup>45</sup> Droysen II, 1, 23; Diodorus XVIII, 39.

<sup>46</sup> Philip was an imbecile, Alexander IV an infant.

tine, seized Jerusalem, captured Laomedon the Satrap; while the fleet, with apparent ease, secured the cities of the Phoenician coast. The Regent and the other Satraps were too involved in their own affairs to oppose this high-handed but — for Ptolemy's policy — far-sighted action. Phoenicia remained Egyptian till 315 B. C.

The coinage (Series IV) of the three years from the death of Alexander to early in 320 B. C. consisted of staters, tetradrachms, and obols, and is to be distinguished from the previous issues by its dates which are now expressed in Greek letters. This change took place in the latter part of year 10 — that is about the middle of 323.

At the same time as ' gives place to its Greek equivalent Κ, on the staters, the filleted palm branch disappears. The explanation of this symbol is not unattended with certain difficulties. If it was an indication of the Sidonian mint why was it then found necessary to add the superfluous ΣΙ, and why did it not appear on the silver coins as well? On the other hand, the palm branch seems in some way to have been rather closely connected with Sidon and in particular with the city-goddess Astarte. The later coinages of the city show Astarte's sacred car always decorated with palm branches. The goddess is also often represented as Tyche with a palm branch behind her shoulder. If we should be tempted to speculate we might see in it a reference to something the Sidonians were desirous of commemorating. Perhaps it might be a golden palm branch dedicated by Alexander himself in the famous temple of Astarte, in recognition of the signal services rendered by the Sidonian fleet during the siege of Tyre. The golden branch would appear then, most appropriately, on the gold coins and in connection with their Nike type; also its discontinuation in the 10th year would synchronize with the death of the dedicator. But speculations are ever of rather doubtful value and it might be safer, though less interesting, to see in it nothing else than a magistrate's symbol. Even then it is strange that it should occur on the gold alone.

As we have seen, there was unprecedented activity in the Sidonian mint throughout the year 10, particularly in the striking of staters. It was found necessary to cut no less than five new obverse dies (R, S, T, U, V) where heretofore one (Q) had been found ample for the issues of three consecutive years. This activity was doubtless closely associated with Alexander's vast and feverish preparations throughout the Phoenician coast for his approaching expeditions. Since the fall and destruction of Tyre, Sidon was the most important shipping centre in this district, and so was probably also the centre for the aforementioned preparations. It would then be but natural that its mint should supply the sinews.

With the death of Alexander these great preparations came to an abrupt end. We have an echo of this in the coinage, for there are no coins, either of gold or silver, now extant, bearing the date  $\Lambda$  (11).<sup>47</sup> It is evident that there was no need for further coinage between October 323 and October 322 after the unusual minting activities of the preceding year.

In the year 12 (date:  $M$ ) the Sidonian coinage recommences in both metals. The silver, aside from the new date, is the same in its details as before; but the gold staters henceforth discard the mint initials  $\Sigma$ , and bear the date-letters only. It is no less than certain that the staters with the known dates:  $M$ ,  $N$ ,  $\Xi$ ,  $\Gamma$ ,  $\Sigma$ ,  $T$ ,  $Y$ ,  $\Phi$ , and  $\Psi$  belong to Sidon despite the fact that they bear no actual mintmark. In the first place they form a single compact group bound together by style, technique, and identical dies,<sup>48</sup> all of which progress according to the alphabetical order of the letters, thus proving that these letters were intended as dates. In the second place they must belong to Sidon as this was the only mint which struck Alexander coins bearing alphabetical dates. This attribution can be proved in other ways, namely: exactly as on the corresponding silver tetradrachms, so on the staters, the inscription  $\PhiΙΛΙΠΠΟΥ$  takes the place of  $ΑΛΕΞΑΝΔΡΟΥ$  in the year 13 ( $N$ ), and appears for the last time on the coins of the year 16 ( $\Gamma$ ). Also the close similarity — even to the small but unusual detail of the double-coiled serpent ornament on Athene's helmet — between the staters dated  $K$  (which are certainly Sidonian) and  $M$  show them to be from the same mint. Finally, the staters are from fixed or adjusted dies, a peculiarity seldom found elsewhere at this period.

## SERIES V.

Middle of 320 to October 317 B. C.

In Series V the inscription  $\PhiΙΛΙΠΠΟΥ$  takes the place of  $ΑΛΕΞΑΝΔΡΟΥ$ . The first coins to show this innovation are the coins of the last issues of year 13 ( $N$ ), in other words those struck during the Summer of 320 B. C. It was at this very time that Ptolemy of Egypt secured control over the Phoenician

<sup>47</sup> Fresh discoveries may, of course, fill this gap; but even then the coinage must have been phenomenally small, for not a single specimen to have come down to us. Mr. Hill (*Nomisma*, IV, 1909, p. 9, note 1) suggests the reading  $\Lambda$  for  $A$  on the coin published by Müller, no. 1420. But Müller himself places this coin, presumably on account of style, among what he considered the later issues of Sidon. As the coin in question has since become lost, it had best be left where Müller — the only one who has seen it — was induced to place it.

<sup>48</sup> The obverse dies of  $N$  and  $\Xi$ ;  $\Xi$ ,  $\Gamma$ , and  $\Sigma$  are identical, while the reverse die cut for year  $\Gamma$  was later changed to  $\Phi$  and did service for that year as well. The same is found to be the case with a reverse die of year  $N$  which was later altered to  $\Xi$ .

cities. The actual reasons are not apparent why Sidon should make this change, while Ake still retained ΑΛΕΞΑΝΔΡΟΥ on its issues. Under Ptolemaic rule the yearly issue of coin from the mint at Sidon is regular but not prolific; Ake, and particularly Arados, seem at this time to have been much more active.

The official news of the sudden death of Philip III must have reached Sidon about the end of November, 317 B. C., that is, early in the year 17 (P). There was hardly time, therefore, for the new dies of this year (still inscribed ΦΙΛΙΠΠΟΥ) to be cut and put into use. In fact no Sidonian coin dated in this year has been found with the ΦΙΛΙΠΠΟΥ inscription, the only one known has ΑΛΕΞΑΝΔΡΟΥ.

The known denominations belonging to Series V are: stater, tetradrachm, and the very unusual pentobol. This latter coin, which is in the writer's own collection, is in almost mint condition and seems never to have been cleaned; above all, the genuineness of the piece is entirely above suspicion. Its weight, therefore, must be about as formerly intended.<sup>49</sup> It is too heavy by nearly 0.30 grammes for the more usual tetrobol and much too light for a drachm. As ancient silver coins err almost invariably on the side of lightness rather than overweight, this odd specimen must be a light pentobol of the Attic system. But as a pentobol would not be a particularly convenient divisional coin for a city which only struck tetradrachms, there must be some other explanation for its existence. Fortunately we have not far to seek. At this very time the Island of Rhodes was preeminently the commercial and financial centre of the western Mediterranean. Important in this connection is the fact that the Rhodian drachm was the exact equivalent in weight to the Attic pentobol. As Sidon was now perhaps the most important trading city in Phoenicia it would no doubt have close commercial relations with Rhodes and for the express furtherance of these relations have issued a coin exchangeable between the two systems. The commercial relations between Sidon and the neighboring Island of Cyprus were probably quite active, and the cities of Cyprus had by this time practically conformed their autonomous coinages to the Rhodian system while, at the same time, striking the usual Alexander tetradrachm of Attic weight. Our pentobol is dated Ι (year 14) or 320 to 319 B. C., the year after the seizure of Phoenicia by Ptolemy. Now it is a curious fact that Ptolemy, not long after this time, followed a similar system in issuing coins from his mint at Alexandria: Attic tetradrachms coupled with Rhodian drachms. Whether Ptolemy influenced Sidon or vice-versa is an interesting problem.

<sup>49</sup> In one or two places the edge seems to have been very slightly filed — for jewelry purposes no doubt as it is a very handsome little coin. The original weight might have been 3.60 or 3.70, but no more.

## SERIES VI.

End of 317 to October 309 B. C.

The hasty raid of Eumenes the Kardian into Phoenicia from Cilicia, his seizure of some of the ports (Sidon among these ?), his building of a fleet and its subsequent defection, his retreat eastwards, — have left no apparent traces upon the Sidonian coinage.

Towards the end of the Summer of 316 B. C. Seleukos, Satrap of Babylon, was forced to flee for his life before Antigonos' successful advance after the final defeat of Eumenes at Gabiene. Seleukos effected his escape to Ptolemy in Egypt and left no stone unturned to arouse him against the now dangerous Antigonos. The latter, suspecting this, marched his army into winter-quarters in Cilicia, where he would be within striking distances of his enemies both to the South and West. With the beginning of Spring Antigonos advanced into Syria, easily drove the Egyptian garrisons out of the Phoenician cities, and laid siege to Tyre, whither Ptolemy's forces had retreated. Since the days of Alexander Tyre had become the strongest fortified point on the entire Phoenician coast and could only be taken by close investment on land and sea — in other words only by starvation. In the meanwhile, Antigonos had called together a conference of the Phoenician princes in which he explained to them that he meant them no harm and confirmed them in their possessions. At the same time he ordered a large number of ships to be built in the three great dockyards of Phoenicia: Sidon, Byblos, and Tripolis. He then left a besieging force of men and ships before Tyre and continued his advance southwards, taking the cities of Joppa and Gaza where he placed garrisons. Thereupon he returned to before Tyre. The siege dragged on into the Summer of 314 B. C. Forced at last by hunger and want, the city capitulated after a siege of 15 months. Antigonos now found it necessary, owing to recent events in Asia Minor, to leave Syria himself, but placed his son Demetrios in command of an army of some eighteen thousand men and forty elephants to defend the country against any attempt on Ptolemy's part to reconquer it. Throughout the year 313 B. C., however, Ptolemy was kept far too busy suppressing revolts in Cyrene and on the Island of Cyprus and in raiding the Cilician coast to attempt the reconquest of Syria; but during the Winter of 313-312 B. C. he commenced mighty preparations for the attempt and continued these far into the ensuing Spring. Demetrios moved to Gaza to await Ptolemy. It was here that the two armies at last met. The battle resulted in a decisive defeat for the young Demetrios who, however, managed to make his escape with the remnants of his army to Tripolis. With

the exception of the fortress of Tyre all the Phoenician cities (Sidon included) immediately opened their gates to Ptolemy. The Egyptian army commenced the siege of Tyre, but the garrison, discouraged by the recent disaster of Gaza, surrendered the place without resistance. Ptolemy then continued his advance northwards, Demetrios retreating before him into Cilicia. But Ptolemy was not allowed to enjoy his recovered province for long, for Antigonos, hastening from Phrygia with his main army, joined Demetrios and together, with overwhelming forces, threatened to annihilate their enemy. Ptolemy once more retreated southwards, dismantling the fortresses as he went, until he had safely placed the desert between himself and Antigonos. The latter, mindful of Perdikkas' fate, did not attempt to attack him in his own country. Besides, Seleukos, who had left Ptolemy after the battle of Gaza and had retaken his lost Satrapy of Babylon, was becoming threateningly powerful and Antigonos did not care to have such an enemy in his rear. With the beginning of 311 therefore, he hastened to make peace with Ptolemy — by which peace, however, Phoenicia and Palestine remained in Antigonos' power. The years immediately following were ones of peace for the Phoenician cities.

The Sidonian coinage for this period (317-309 B. C.), continues as before, except that with the first year (P) the old inscription ΑΛΕΞΑΝΔΡΟΥ again takes its place on the coins owing to the death of Philip Arrhidaios. As before, we have staters dated alphabetically but with no other mintmark; tetradrachms with both ΣΙ and dates (P—Ω). The coinage, on the whole, does not seem to have been heavy; there are no known staters of years P, X, or Ω; no tetradrachms of year Τ. In fact hardly more than a new obverse and two new reverse dies seem to have been cut per year. The only exception seems to have been in the 18th (Σ) year when we find five new obverse and seven new reverse dies for staters and tetradrachms combined. With the stater issue this activity continued into the following year as well. Now it was during the 18th year that the invasion of Antigonos, the surrender of Sidon, and the commencement of the siege of Tyre occurred. As under Alexander so undoubtedly under Antigonos, the base for an army and fleet besieging Tyre would still be Sidon and it is to this fact that we ought to attribute the unusual activity of the Sidonian mint for years Σ and Τ.

It is also a strange coincidence that with the arrival of Antigonos in Phoenicia the griffin, which since the death of Alexander in 323 B. C. had been discarded in favor of the serpent as the ornament on Athene's helmet, should again make its appearance on the staters. Can we connect this reappearance with the policy and ambitions of Antigonos? As ruler over practically all of Alexander's Asiatic conquests he was now clearly considering himself the great Macedonian's successor and was aiming at the recovery

of the remaining lands once ruled by him. As it was, Antigonos was undoubtedly the acknowledged ruler of the East and this fact might easily have suggested the reappearance of the griffin—a monster of eastern origin and conception.

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### SERIES VII.

October 309 to 305 B. C.

The peace which Antigonos and Ptolemy had consummated in the Summer of 311 endured for five years, but could last no longer between rulers actuated by such diametrically opposite policies as were the master of Asia and the Satrap of Egypt. In the Spring of 306 Antigonos suddenly declared war. The Spring and Summer were occupied by the battles and sieges on and around the Island of Cyprus, ending with the complete defeat of Ptolemy in the sea-fight off Salamis and the conquest of the Island itself by Demetrios. The Egyptian fleet thus rendered harmless, Antigonos spent the remainder of the Summer in preparations for the invasion of Egypt. When at last these were completed the army left Antigoneia on the Orontes, the new capital of Antigonos, and marching through Coele-Syria met the fleet, which had skirted along the Phoenician coast, at Gaza in the early part of November. In accordance with his usual policy Ptolemy awaited the invader behind the defences of the Nile. As usual the invaders were again unable to force these defences or to make any effect upon this seemingly impregnable land. After losing many men and ships both in battle and by the wintry storms, which now broke out in all their fury along the low and dangerous coast, Antigonos withdrew his army to save it from utter destruction in this baffling country. The scene now shifted to Rhodes and comparative peace seems to have reigned in Phoenicia which was still held by Antigonos' garrisons. As the dated Sidonian issues (the terminus of our studies) came to an abrupt end in the following year it would be outside the scope of our work to pursue the intricate history of the ensuing years.

In style Series VII is merely a continuation of Series VI. With the Ω coins of this last series the Sidonian mint came to the end of the alphabet in dating its coins; how should it proceed? In Egypt, at a little later period, the same dating system was employed, but in this case when Ω was reached the new series was effected by reduplicating the alphabetical letters as AA, BB, etc. The Sidonians proceeded in another way. With their new series they recommenced at the beginning of the alphabet A—B—Γ—Δ, but distinguished this series from the old by adding, in the field, ♚ which in the

same year was changed to a simple M. Very naturally the ensuing forms M M M M A, B, Γ, Δ, have been wrongly taken for the decadic dates 41—44. Mr. Hill in *Nomisma*, IV, however, has shown that this is impossible, first because the position of the M is not stationary, being sometimes above, sometimes below, the letters A—Δ thus showing it to be subordinate to the real dates which are simply A, B, Γ, and Δ; secondly, because the series really commences with the monogram M, but as this monogram can be no numeral, the following M's can not be. His decision is now furthermore proved by the fact that the obverses of the coins dated Ω and  $\overset{M}{A}$  are from the same die. If we were to suppose that  $\overset{M}{A}$  could stand for 41 there would then be a lapse of sixteen years between the appearance of Ω and the commencement of the A—Δ series. This result is impossible to accept as it would be highly improbable that a die would be kept for sixteen years after its first use and then used again. In the rusted and otherwise damaged dies of Syracusan dekadrachms we can see what care was taken of dies in ancient mints between periods of use, and, what is more, it is impossible to suppose such very long breaks in the continuity of these Syracusan dekadrachm issues. M can therefore only be taken as a differential to designate a new issue.

Series VII continues for four years and then comes to an abrupt end. The same will be found to be the case in the following year with the Ake coinage. What reason can we assign for this sudden cessation of two mints which had been so busily issuing coins for twenty-eight years? One rather plausible explanation may lie in the fact that at this very time Antigonos commenced a special issue of Alexander coins at Tyre<sup>50</sup>—in addition to the municipal didrachms bearing local types which had been appearing at this mint almost yearly since circa 320 B. C. This new issue of "Alexanders" was evidently struck under central authority as, in strong contrast to those of Ake and Sidon which bear their local mintmarks ΤΥ and ΣΙ, these Tyrian issues show no indication of their mint and no dates—they are marked by varying magistratal monograms only. In opening a central mint at Tyre, Antigonos would have little need for the local mints of Sidon and Ake. Also, these two cities were less strongly fortified than Tyre and both had in past wars opened their gates with disquieting alacrity to the knocks of Egyptian armies.

There is another, and perhaps more likely reason for the discontinuance of the two Phoenician coinages. With the Spring of 305 B. C. commenced the memorable siege of Rhodes. Rhodes at this time was the banking cen-

<sup>50</sup> The present writer expects shortly to publish a monograph in which these Tyrian "Alexanders" will be dealt with.

tre of the Greek world. The immediate result of the siege would naturally be the impairment of credit, to the severe detriment of the whole trade of the Levant whose correspondences depended upon the Rhodian banks. How much of a commercial disaster the protracted siege must have been we can judge from the efforts made by various neutral powers and cities to bring about peace between the belligerents. Sidon had, as already suggested in the pentobol or Rhodian drachm (no. 44), a more or less close commercial relation with Rhodes. Indeed, important commercial centres such as Sidon and Ake must have had very intimate relations with the Rhodian banks and so have felt severely the financial stress due to the siege. Particularly would this be the case as their own trade and prosperity was now beginning to wane. The capture and destruction of Tyre by Alexander the Great, together with the throwing open of the Eastern trade to the rest of the world by his conquest of the Persian empire, had given a mighty impetus to the commerce and prosperity of these two cities. But Tyre was now recovering and fast coming back into her own once more; and, above all, the phenomenal rise of Alexandria to commercial prosperity was at this time in full swing under the beneficial and enlightened rule of Ptolemy — a serious menace to the trade of Phoenicia. It is therefore, on the whole, as much to financial reasons as to any act of Antigonos, that we ought to attribute the cessation of the coinages of Sidon and Ake. The Alexander issues recently inaugurated at Tyre were, as suggested above, royal issues meant for the pay of Antigonide troops defending Phoenicia, Coele-Syria, and Palestine against the ever present menace from Egypt. The Tyrian mint would not therefore be affected by the financial reasons which may have brought about the closing of the municipal mints of its northern and southern neighbor.

# THE COINAGE OF AKE

## SERIES I

Circa 332—330 B. C.

### TYPES.

#### TETRADRACHM.

Beardless head of young Herakles to r.      ΑΛΕΞΑΝΔΡΟΥ in curved line on r. Zeus covered with lion skin.      Circle of dots.      seated on throne to l. His feet rest on a stool, his legs are parallel and are draped as far as waist. He holds eagle in extended r. and rests l. on sceptre.      Circle of dots.

### COINS.

#### FULMEN.

##### 1. TETRADRACHM. Thunderbolt in left field.

I —  $\alpha$  E. T. N. gr. 17.17; another, gr. 17.17.

I —  $\beta$  Same, (cleaned) gr. 17.04.

I —  $\gamma$  Same, gr. 17.24.

Plate V, 9

II —  $\alpha$  Same, gr. 17.23.

Plate V, 10

II —  $\beta$  Same, gr. 17.18.

II —  $\gamma$  Berlin (worn), gr. 16.24; Dattari.

II —  $\delta$  E. T. N. gr. 17.28.

### M

##### 2. TETRADRACHM. M beneath throne.

III —  $\alpha$  E. T. N. gr. 17.15; Dattari.

Plate V, 11

III —  $\beta$  Same, gr. 17.15; another, gr. 17.17.

IV —  $\alpha$  Am. Num. Soc.

IV —  $\beta$  E. T. N. gr. 17.20.

##### 3. TETRADRACHM. M beneath throne.

III —  $\alpha$  E. T. N. gr. 17.24.

Plate V, 12

III —  $\beta$  Same, gr. 17.15.

III —  $\gamma$  Same, gr. 17.15.

IV —  $\alpha$  Same, gr. 17.18; another, gr. 17.13.

<sup>1</sup> There are three varieties of this coin in the British Museum — but they are all duplicates of coins in the writer's collection.

IV —  $\beta$  Same, gr. 17.24.  
 IV —  $\gamma$  Same, gr. 17.10.  
 IV —  $\delta$  Same, gr. 17.19.  
 IV —  $\epsilon$  Same, gr. 17.13.  
 IV —  $\zeta$  R. Storrs.

Plate V, 13

 $\Sigma\Omega$ 

4. TETRADRACHM.<sup>2</sup>  $\Sigma\Omega$  beneath throne.  
 V —  $\alpha$  E. T. N. gr. 17.25.  
 V —  $\beta$  Same, gr. 17.25.  
 VI —  $\gamma$  Same, gr. 17.15.  
 VI —  $\delta$  Same, gr. 17.21, Plate V, 14; another (cleaned), gr. 16.85.

Plate V, 15

## SERIES II.

Circa 329 — 328 B. C.

## TYPES.

## STATER.

Head of Athene r. with formal curls, necklace, and triple-crested Corinthian helmet adorned with running griffin.  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  on l. Winged Nike standing to l., holds wreath in outstretched r., and standard in l.

## TETRADRACHM.

Similar type and style as previous tetradrachm.  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  in straight line on r. Similar type and style to previous tetradrachm.

## DRACHM.

Similar.  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Similar.

## TRIOBOL (HEMIDRACHM).

Similar.  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Similar.

## COINS.

 $\gamma$ 

5. STATER. O in right field.  
 A —  $\alpha$  Berlin (Prokesch-Osten).  
 6. TETRADRACHM.<sup>3</sup> O beneath throne.  
 IV —  $\alpha^4$  E. T. N. gr. 17.23.  
 IV —  $\beta$  Same, gr. 17.10.  
 IV —  $\gamma$  Same, gr. 17.06.  
 IV —  $\delta$  Same, gr. 17.10; another, gr. 17.21.  
 IV —  $\epsilon$  Same, gr. 17.05; another, gr. 17.10.

Plate V, 16

Plate V, 18

<sup>2</sup> Two specimens in the Berlin Cabinet of which no casts were sent me.

<sup>3</sup> Six specimens in the British Museum but all duplicates of varieties in the author's collection.

<sup>4</sup> An old die of 4 ( $\Sigma\Omega$ ). The  $\gamma$  has been engraved over the  $\Sigma\Omega$ .

V — ε Commerce.

V — η E. T. N. gr. 17.15 ; another, gr. 17.18 ; another, gr. 17.04 ; another, gr. 17.18.

V — ζ Same, gr. 17.15.

V — η Commerce.

V — θ E. T. N. gr. 17.03 ; another, gr. 17.07.

V — ι Same, gr. 17.20 ; another, gr. 17.06.

V — κ Same, gr. 17.13.

V — λ Same, gr. 17.18.

V — μ Same, gr. 17.22.

V — π Same, gr. 17.06.

VII — δ Same, gr. 17.10.

VIII — κ Same, gr. 17.17.

VIII — λ Same, gr. 17.11, Plate V, 20 ; another, gr. 17.10.

VIII — ν Same, gr. 17.12.

VIII — ξ Dattari.

VIII — ο E. T. N. (worn), gr. 17.05.

IX — λ Same, gr. 17.21.

IX — μ Same, gr. 17.11 ; another, gr. 16.96.

IX — ν Same, gr. 17.10 ; another, gr. 17.13.

IX — π Same, gr. 17.05 ; another, gr. 16.77.

IX — ρ Same gr. 17.05.

IX — σ Same, gr. 17.14.

IX — τ Same, gr. 17.00.

IX — υ Same, gr. 17.11.

IX — φ Same, gr. 17.17 ; Egger, Sale XL, 1912, no. 604.

IX — χ E. T. N. gr. 17.17 ; R. Storrs.

Plate V, 17

Plate V, 19

Plate VI, 1

Plate VI, 2

## 7. DRACHM. No mint mark.

Berlin (Fox).

## 8. TRIOBOL. No mint mark.

Gotha, Plate VI, 3 ; E. T. N. gr. 1.92 ; Dattari (two) ; Torrey, gr. 2.07.

## SERIES III.

Circa 327 B. C.

## TYPES.

## STATER.

Same type and style as previous stater.

ΑΛΕΞΑΝΔΡΟΥ on l. Same type and style as previous stater.

## TETRADRACHM.

Same type and style as previous tetradrachm of dies IX, λ — χ.

ΑΛΕΞΑΝΔΡΟΥ on r. Same type and style as previous tetradrachm.

## DRACHM.

Same type and style as previous drachm. ΑΛΕΞΑΝΔΡΟΥ on r. Same type and style as previous drachm.

## COINS.

Ty

9. STATER. ♀ in field on right.

B — a Berlin.

Plate VI, 4

10. TETRADRACHM. ♀ in field on left.

V — a E. T. N. gr. 17.16, Plate VI, 5; Am. Num. Soc.

X — β E. T. N. gr. 17.19; Berlin.

X — γ E. T. N. gr. 17.05; another, gr. 17.15.

X — δ Same, gr. 17.21 (formerly Egger Sale XL, 1912, no. 685).

X — ε Same, gr. 17.15, Plate VI, 6; another, gr. 17.14.

X — ζ Same, gr. 17.23; another, gr. 17.20.

X — ξ Glasgow (Hunter Coll., no. 169).

XI — ε E. T. N. gr. 17.11.

XI — ζ Same, gr. 17.16.

Plate VI, 7

XI — ξ Berlin.

11. DRACHM. ♀ in field to left.

London, Plate VI, 8; Rouvier (no. 900).

## SERIES IV.

326 — 321 B. C.

## TYPES.

## STATER.

Similar type and style to previous stater. ΑΛΕΞΑΝΔΡΟΥ on l. Similar type and style to previous stater.

## TETRADRACHM.

Similar type and style to previous tetradrachms. ΑΛΕΞΑΝΔΡΟΥ on r. Similar type and style to previous tetradrachm.

## OBOL.

Similar type and style to tetradrachm. ΑΛΕΞΑΝΔΡΟΥ on r. Similar type and style to tetradrachm.

## COINS.

Dated year 20.

12. TETRADRACHM. ♀ in field on left

XI — a E. T. N. gr. 17.16.

Plate VI, 9

XII — β R. Storrs.

XII —  $\gamma$  E. T. N. gr. 17.14 (formerly Egger Sale XL, 1912, no. 684), Plate VI, 10; another gr. 17.04.  
 XII —  $\delta$  E. T. N. (piece broken out), gr. 16.50.  
 XII —  $\epsilon$  Same (piece broken out), gr. 16.10.  
 XIII —  $\epsilon$  Same, gr. 17.26. Plate VI, 11

Dated year 21.

13. STATER.  $\text{||=}\text{||=}$   $\text{||=}\text{||=}$  in field on right.  
 C —  $\alpha$  Berlin. Plate VI, 12

14. TETRADRACHM.  $\text{||=}\text{||=}$  in field on left.  
 XIII —  $\alpha$  E. T. N. gr. 17.26; another, gr. 17.12; Commerce, Plate VI, 13; Petrograd.  
 XIII —  $\beta$  E. T. N. gr. 17.03; Rouvier (907), gr. 16.70.  
 XIII —  $\gamma$  E. T. N. gr. 17.08.  
 XIII —  $\delta$  London; Dattari; Copenhagen.<sup>s</sup>

15. OBOL.  $\text{||=}\text{||=}$  in field on left.  
 E. T. N. gr. 72, Plate VI, 14; Hague; Copenhagen.

Dated year 22.

16. TETRADRACHM.  $\text{||=}\text{||=}$  in field on left.  
 XIV —  $\alpha$  Paris, Plate VI, 15; E. T. N. gr. 17.22.  
 XIV —  $\beta$  E. T. N. gr. 17.11; Alexandria; R. Storrs.  
 XIV —  $\gamma$  Berlin; E. T. N. gr. 17.22; Petrograd.  
 XIV —  $\delta$  E. T. N. gr. 17.20.  
 XIV —  $\epsilon$  Berlin (Löbbecke).  
 XIV —  $\zeta$  R. Storrs.  
 XIV —  $\zeta$  Rouvier (909), gr. 16.65.

Dated year 23.

17. STATER.  $\text{||=}\text{||=}\text{||=}$  in field on right.  
 D —  $\alpha$  London. Plate VI, 16

18. TETRADRACHM.  $\text{||=}\text{||=}$  in field on left.  
 XV —  $\alpha$  R. Storrs; E. T. N. gr. 17.12. Plate VI, 17  
 XV —  $\beta$  E. T. N. gr. 17.18.  
 XV —  $\gamma$  Same, gr. 17.13; Am. Num. Soc.  
 XV —  $\delta$  E. T. N. gr. 17.26; another, gr. 17.07.  
 XV —  $\epsilon$  Same, gr. 17.26.

<sup>s</sup> Break in reverse die makes date look like "22."

Dated year 24.

19. STATER.  $\text{||||=}\text{¶}$  in field on right.  
 E —  $\alpha^6$  London, Plate VI, 18; E. T. N. gr. 8.61.  
 E —  $\beta$  Vienna (no. 10272) [inscription  $\text{¶}$ ].  
 $\text{||||=}$

20. TETRADRACHM.  $\text{¶}$  in field on left.  
 $\text{||||=}$

XVI —  $\alpha$  E. T. N. gr. 17.20; another, gr. 17.17; New York.  
 XVI —  $\beta$  E. T. N. (piece broken out), gr. 16.00; Vienna (no. 29624), Plate VI, 19  
 XVI —  $\gamma$  Berlin (Prokesch-Osten), gr. 17.06; Vienna (no. 10274).  
 XVI —  $\delta$  E. T. N. gr. 17.13; Berlin (Prokesch-Osten), gr. 17.15.  
 XVI —  $\epsilon$  E. T. N. gr. 17.14; another, gr. 16.97.  
 XVI —  $\zeta$  Same, gr. 17.21.  
 XVI —  $\zeta$  Berlin (Fox).  
 XVI —  $\eta$  Gotha.

Dated year 25.

21. STATER.  $\text{¶}$  in field on right.  
 $\text{||||=}$

F —  $\alpha$  Berlin<sup>7</sup>; Paris<sup>7</sup> (no. 417); London. Plate VI, 20  
 G —  $\alpha$  Yakountchikoff (date off flan), gr. 8.60. Plate VI, 21  
 H —  $\beta^8$  E. T. N. gr. 8.60. Plate VI, 22

22. TETRADRACHM.  $\text{¶}$  in field on left.  
 $\text{||||=}$

XVII —  $\alpha$  E. T. N. gr. 17.20, Plate VI, 23; Berlin (Prokesch-Osten), gr. 16.89; Commerce.  
 XVII —  $\beta$  E. T. N. gr. 17.12.  
 XVII —  $\gamma$  Same, gr. 17.11 (formerly Egger Sale XL, 1912, no. 685).

## SERIES V.

Circa 321 — 317 B. C.

### TYPES.

#### STATER. Type a.

Head of Athene similar in style and description to previous issues.

$\Lambda\Lambda\Xi\Lambda\Delta\POY$  on r. Winged Nike of same description but of better style than on previous issues.

<sup>6</sup> Die of 17 D —  $\alpha$  altered from "23" to "24." Obverse die "E" may simply be "D" retouched.

<sup>7</sup> Date is off the flan but as die is identical to the British Museum specimen the date must be "25."

<sup>8</sup> Date is off the flan. The obverse die is very similar to die I of year 26, but the fact that the inscription  $\Lambda\Lambda\Xi\Lambda\Delta\POY$  is still on the left places this coin in year 25.

## Type b.

Helmeted head of Athene to r. with flowing hair. The Corinthian helmet, which now shows only two crests, is adorned with running griffin.

## TETRADRACHM. Type a.

Head of Herakles of same type and description as on previous tetradrachms.

Type b.<sup>9</sup>

Head of Herakles of modified style.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike as above.

ΑΛΕΞΑΝΔΡΟΥ on r. Zeus of same type and description as on previous tetradrachms.

ΑΛΕΞΑΝΔΡΟΥ on r. Zeus seated to l., holds eagle in extended r. hand, sceptre in l., lower limbs, which are henceforth *crossed*, draped to waist, feet rest on footstool; two rungs to the throne.

## BRONZE.

Head of beardless Herakles in lion's skin to r. in circle of dots.

Bow in quiver to l. Below: ΑΛΕΞΑΝΔΡΟΥ  
Below this: Club to r.

## COINS.

Dated year 26.

23. STATER. Type a.  on right.

F — a1 London (By an oversight the die engraver has left out = of ||| |||=).

Plate VII, 1

F — a2 Berlin (Same die but = has been added).

Plate VII, 2

I — β<sup>10</sup> Berlin.

Plate VII, 3

Type b.  on right.

J — γ Vienna (no. 10273), Plate VII, 4; Petrograd (no. 253b), gr. 8.44.

J — δ Petrograd (no. 258), gr. 8.51.

J — ε E. T. N. gr. 8.56.

Type b.  on right.

J — f Berlin (holed); Petrograd (no. 245), gr. 8.48; Cambridge (Leake Coll.), gr. 8.60.

Plate VII, 5

24. TETRADRACHM. Style a.  in field on left.

XVIII — a Berlin (Prokesch-Osten), gr. 16.89.

XVIII — β E. T. N. gr. 17.06.

Plate VII, 6

Style b.  in field on left.

XIX — γ E. T. N. gr. 17.21, Plate VII, 7; Turin. gr. 15.78 (cast?); Rouvier.<sup>11</sup>

<sup>9</sup> These coins are henceforth of Müller's style IV.

<sup>10</sup> Date is off flan but style places coin in this year.

<sup>11</sup> This coin is in Rouvier's own collection, described in his "Num. des Villes de la Phénicie" under no. 910, plate A 3, and erroneously given to year 24.

XIX —  $\delta$  Rouvier ; Alexandria ; R. Storrs.

XIX —  $\epsilon$  Vienna (no. 29625).

XIX —  $\zeta$  Paris (holed).

XIX —  $\zeta$  E. T. N. (ancient (?) cast), gr. 14.29.

Style b  in field on left ;  beneath throne.

XX —  $\eta$  E. T. N. gr. 16.84.

Plate VII, 8

25. BRONZE. Below club : TY  .

Paris (no. 1079) ; Petrograd (no. 17).

Plate VII, 9

26. BRONZE. Below club : TY .

Vienna (no. 10665), Plate VII, 10 ; Rouvier.

Dated year 27.

27. STATER. On left  ; on right .<sup>12</sup>

K —  $\alpha$  Petrograd ; Berlin, Plate VII, 11 ; Paris (no. 418).

K —  $\beta$  Petrograd (no. 251).

28. TETRADRACHM.  in field on left ;  beneath throne.

XX —  $\alpha$  E. T. N. gr. 17.04 ; Cambridge (McClean Coll.), gr. 17.04.

XX —  $\beta$  London ; Rouvier.

XX —  $\gamma$  Paris, Plate VII, 12 ; Rouvier.

XXI —  $\delta$  Berlin (Prokesch-Osten), gr. 17.09 ; Dattari.

Plate VII, 13

XXI —  $\epsilon$  E. T. N. gr. 17.18.

XXI —  $\zeta$  Copenhagen.

XXII —  $\zeta$  London ( present ?).

Plate VII, 14

Dated year 28.

29. TETRADRACHM.  in field on left ;  beneath throne.

XX —  $\alpha$  E. T. N. gr. 17.21, Plate VII, 15 ; another (cleaned), gr. 15.82.

XXIII —  $\beta$  Same, gr. 17.19.

Plate VII, 16

XXIII —  $\gamma$  Same, gr. 17.19.

XXIII —  $\delta$  Glasgow (no. 171), gr. 17.17.

XXIII —  $\epsilon$  London ; E. T. N. gr. 17.04.

XXIII —  $\zeta$  E. T. N. (cleaned), gr. 16.40.

XXIII —  $\zeta$  Vienna (no. 29636).

XXIII —  $\eta$  Vienna (no. 10278).

XXIII —  $\theta$  Cambridge (McClean Coll.).

XXIV —  $\iota$  Berlin ; Cambridge (Leake Coll.), gr. 16.93.

Plate VII, 17

XXIV —  $\kappa$ <sup>13</sup> London.

<sup>12</sup> These staters must be dated 27 or 28, in every case, though the date is off the flan.

<sup>13</sup> As the date is partly off the flan (only   visible) this date may be 28 or 29.

Dated year 29.

30. STATER. On left ; on right .

L —  $\alpha$  Paris, Plate VII, 18 ; Petrograd ; Turin, gr. 8.51.

in field on right.

L —  $\beta$  Berlin.

Plate VII, 19

31. TETRADRACHM. in field on left ; beneath throne.

XXIII —  $\alpha^{14}$  E. T. N. gr. 17.21.

Plate VII, 20

XXV —  $\beta$  Rouvier.

Plate VII, 21

in field on left.

XXIV —  $\gamma$  Vienna (no. 29627) ; E. T. N. gr. 17.15.

Plate VII, 22

XXIV —  $\delta$  Berlin ; another ; E. T. N. gr. 17.15 ; Alexandria.XXIV —  $\epsilon$  Berlin (Prokesch-Osten), gr. 16.94.XXIV —  $\zeta$  E. T. N. gr. 17.17.XXIV —  $\zeta$  Same, gr. 16.55.

in field on left.

XXIV —  $\eta$  London, Plate VII, 23 (reverse).XXIV —  $\theta$  London.XXIV —  $\iota$  Alexandria.

## SERIES VI.

Circa 317 — 307 B. C.

## TYPES.

STATER. Type a.

Head of Athene r. in crested Corinthian helmet adorned with running griffin. Hair flowing, necklace of pearls.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike standing, holds wreath in r. hand and standard in l. Henceforth mint-name and date always in front of Nike.

Type b.

Similar, but helmet of Athene adorned with coiled serpent. This type used only during year 33.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike as above.

Type c.

Head of Athene r. in crested Corinthian helmet adorned with running griffin. Hair in formal curls. Athene wears ear-rings and necklace.

ΑΛΕΞΑΝΔΡΟΥ on r. Winged Nike as above.

<sup>14</sup> This *may* be dated 28 as the date is partly off the flan, but the amount of wear shown by the obverse die would seem to place the coin in year 29.

## TETRADRACHM.

Head of young Herakles in lion's skin to r. Border of dots.

ΑΛΕΞΑΝΔΡΟΥ on r. Zeus, nude to waist, seated l. holds eagle in outstretched r., sceptre in l. Zeus draws r. leg back, l. forward, feet resting on stool. Two rungs to throne.

## COINS.

Dated year 30.

32. STATER. Type a. —  $\Psi\Omega$  in left field.

M —  $\alpha$  Paris, Plate VIII, 1; E. T. N. gr. 8.52.

$\Psi\Omega$  in left field.

N —  $\beta$  Berlin.

Plate VIII, 2

33. TETRADRACHM.  $\Psi\Omega$  in left field.

XXIV —  $\alpha$  E. T. N. gr. 17.19.<sup>15</sup>

—  $\Psi\Omega$  in left field.

XXIV —  $\beta$  E. T. N. gr. 17.15.

XXVI —  $\gamma$  Same, gr. 17.16; London.

XXVI —  $\delta$  Paris, Plate VIII, 5; Rouvier.

XXVI —  $\epsilon$  Berlin.

XXVI —  $\zeta$  Berlin; E. T. N. gr. 17.09.

XXVII —  $\zeta$  Glasgow (no. 172), gr. 16.90.

XXVII —  $\eta$  London.

XXVII —  $\theta$  London.

XXVII —  $\iota$  Berlin.

XXVII —  $\kappa$  Berlin (Prokesch-Osten), gr. 17.17.

XXVII —  $\lambda$  Vienna (no. 29622).

XXVIII —  $\mu$  New York.

Plate VIII, 3

Plate VIII, 4

Plate VIII, 6

Dated year 31.

34. TETRADRACHM.  $\Psi\Omega$  in left field.

XXVII —  $\alpha$  Berlin (Löbbecke), gr. 16.86.

Plate VIII, 7

XXVII —  $\beta$  Rouvier (918), gr. 17.00; London.

—  $\Psi\Omega$  in left field.

XXIX —  $\gamma$  Rouvier (no. 1220), gr. 17.00.<sup>16</sup>

Plate VIII, 8

XXIX —  $\delta$  E. T. N. gr. 16.80 (formerly Oertel Sale, no. 115).

XXX —  $\delta$  Berlin (Prokesch-Osten), gr. 16.85.

Plate VIII, 9

XXX —  $\epsilon$  Berlin (Prokesch-Osten), gr. 16.92; Turin, gr. 16.92.

<sup>15</sup> Obverse die now become much worn by constant use.

<sup>16</sup> This obverse die broke almost immediately.

Dated year 32.

35. TETRADRACHM.  $\text{II}^{\text{a}}\text{=}\text{Y}\text{o}$  in left field.  
 XXX —  $\alpha$  London (two examples). Plate VIII, 10  
 XXX —  $\beta$  Vienna (no. 29628) ; Alexandria.  
 XXX —  $\gamma$  Paris.  
 XXX —  $\delta$  Copenhagen.  
 XXX —  $\epsilon$  London.  
 XXX —  $\zeta$  Berlin (Prokesch-Osten), gr. 17.09.  
 XXX —  $\zeta$  E. T. N. gr. 17.04 ; another, gr. 17.13 (formerly Hirsch Sale  
     XXXIII, Nov., 1913, no. 658).  
 XXX —  $\eta$  London.  
 XXXI —  $\eta$  E. T. N. gr. 17.10 ; Glasgow (no. 173). Plate VIII, 11

Dated year 33.

36. STATER.  $\text{Y}\text{o}$  in left field.  
 N —  $\alpha$  E. T. N. gr. 8.60 ; Berlin. Plate VIII, 12  
 O type b. —  $\beta$  London, Plate VIII, 13 ; Paris (two).  
      $\text{III}^{\text{a}}\text{=}\text{Y}\text{o}$  in left field.  
 O —  $\gamma$  Berlin. Plate VIII, 14

37. TETRADRACHM.  $\text{III}^{\text{a}}\text{=}\text{Y}\text{o}$  in left field.

XXXI —  $\alpha$  London. Plate VIII, 15  
 XXXI —  $\beta$  Berlin (Löbbecke), gr. 17.12.  
 XXXI —  $\gamma$  London.

Dated year 34.

38. TETRADRACHM.  $\text{III}^{\text{a}}\text{=}\text{Y}\text{o}$  in left field.  
 XXXII<sup>17</sup> —  $\alpha$  Copenhagen ; E. T. N. gr. 16.88. Plate VIII, 16  
 XXXII —  $\beta$  Rouvier (no. 921), gr. 16.90. Plate VIII, 17  
 XXXIII —  $\gamma$  London (two specimens).  
 XXXIII —  $\delta$  Berlin (Prokesch-Osten), gr. 17.08.  
 XXXIII —  $\epsilon$  E. T. N. (cleaned), gr. 16.96 (formerly Coll. Walcher de Molthein  
     no. 1054).  
 XXXIII —  $\zeta$  Vienna (no. 29629). Plate VIII, 18

Dated year 35.

39. STATER.  $\text{=}\text{Y}\text{o}$  in left field.  
 P —  $\alpha$  Gotha ; London. Plate IX, 1  
 P —  $\beta$  Berlin.  
     Type c.  
 Q —  $\beta$  London. Plate IX, 2

<sup>17</sup> Obverse die badly worn by this time.

Q — γ Petrograd (no. 253a), gr. 8.55.  
 || ||| — = ψο in left field.

P — δ Paris.  
 ψο in left field.

Q — ε<sup>18</sup> London.

Plate IX, 3

40. TETRADRACHM. || ||| — = ψο in left field.

XXXIII — α Vienna (no. 29630).

Plate IX, 4

XXXIV — β Berlin.

XXXIV — γ London, Plate IX, 5; Rouvier (no. 922), gr. 17.05.

XXXIV — δ Berlin (Prokesch-Osten), gr. 16.40.

XXXIV — ε Cambridge (McClean Coll.), gr. 17.23.

Dated year 36.

41. TETRADRACHM. || ||| — = ψο in left field.

XXXIV — α Berlin<sup>19</sup> (Prokesch-Osten), gr. 17.04.

Plate IX, 6

XXXIV — β Vienna (no. 10277).

XXXIV — γ Yakountchikoff, gr. 16.53.

XXXV — δ E. T. N. gr. 16.95 (formerly Egger Sale, XL, May, 1912, no. 685).

XXXV — ε Vienna (no. 29631).

Plate IX, 7

XXXV — ζ Vienna (no. 10276).

Dated year 37.

42. TETRADRACHM. || ||| — = ψο in left field.

XXXVI — α Paris; E. T. N. (cleaned).

XXXVI — β Paris; E. T. N. gr. 16.35; R. Storrs; London.

XXXVI — γ Vienna (no. 10275); E. T. N. gr. 17.22.

XXXVI — δ Vienna (no. 29632); Hague.

XXXVI — ε Berlin (Prokesch-Osten), gr. 17.12; Torrey, gr. 17.13. Plate IX, 8

XXXVI — ζ E. T. N. (holed), gr. 16.83.

XXXVI — ξ London; Berlin.

XXXVI — η Paris; Rouvier (no. 924), gr. 17.00.

XXXVI — θ E. T. N. gr. 16.99.

XXXVII — ι London, Plate IX, 9; E. T. N. gr. 17.12; New York.

XXXVII — κ Berlin (Prokesch-Osten), gr. 16.77; Yakountchikoff, gr. 17.05; E. T. N. gr. 17.08.

XXXVII — λ Berlin (Prokesch-Osten), gr. 16.98.

XXXVII — μ Berlin (Prokesch-Osten), gr. 16.23; New York.

XXXVII — ν R. Storrs.

XXXVII — ξ Commerce.

XXXVII — ο London.

<sup>18</sup> Only III of the || ||| to be seen, but obverse die proves date.

<sup>19</sup> Date formerly thought to read "16."

Dated year 38.

43. STATER.  $\text{—}=\text{q}\circ$  in left field.R —  $\alpha$  Berlin, Plate IX, 10; London.R —  $\beta$  London; Petrograd; Berlin.44. TETRADRACHM.  $\text{—}=\text{q}\circ$  in left field.XXXVIII —  $\alpha$  London; Egger Sale, XLI, Nov., 1912, no. 407. Plate IX, 11XXXVIII —  $\beta$  Berlin (Dannenberg); E. T. N. (cleaned).XXXVIII —  $\gamma$  Berlin.XXXVIII —  $\delta$  Egger Sale, XLI, Nov., 1912, no. 408.XXXIX —  $\epsilon$  Vienna (no. 29634).

Plate IX, 12

XXXIX —  $\text{F}^{\text{20}}$  Vienna (no. 29633).

Plate IX, 13

XXXIX —  $\zeta$  Berlin (Löbbecke).

Dated year 39.

45. STATER.  $\text{—}=\text{q}\circ$  in left field.S —  $\alpha$  Paris, Plate IX, 14; London (two specimens, one holed).46. TETRADRACHM.  $\text{—}=\text{q}\circ$  in left field.XXXIX —  $\alpha$  Rouvier (no. 926), gr. 17.15.

Plate IX, 15

XL —  $\alpha$  Vienna (no. 29635).XL —  $\beta$  Berlin (Morel), Plate IX, 16; New York.XL —  $\gamma$  London.

## SERIES VII

307 — 304 B. C.

## TYPES.

## STATER.

Head of Athene with flowing locks and griffin adorned helmet to r.  $\text{ΑΛΕΞΑΝΔΡΟΥ}$  on r. Winged Nike as on previous staters standing to l.

## TETRADRACHM.

Head of young Herakles to r. covered with lion's skin. Circle of pearls.

$\text{ΑΛΕΞΑΝΔΡΟΥ}$  on r. Zeus seated l. on throne, holds eagle in outstretched r., sceptre in l. His feet rest on stool, his r. leg is drawn back behind the l. and he is draped to waist. Circle of pearls.

## COINS.

Dated year 8.

47. TETRADRACHM.  $\text{—}=\text{q}\circ$  in left field.XL —  $\alpha$  Brussels.

<sup>20</sup> Really inscribed  $\text{—}=\text{q}\circ$  but dies show it to be intended for "38."

Dated year 9.

48. TETRADRACHM.  $\text{\textcircled{I}}\text{\textcircled{I}}\text{\textcircled{I}}\text{\textcircled{I}}\text{\textcircled{10}}$  in left field.XLI —  $\alpha$  Berlin (Imhoof-Blumer), gr. 17.15; Petrograd; Vienna (no. 29623).

Plate X, 1

XLI —  $\beta$  Berlin (Prokesch-Osten) gr. 16.96.XLI —  $\gamma$  London.XLI —  $\delta$  Hague; Paris.XLI —  $\epsilon$  Berlin (Löbbecke).XLI —  $\zeta$  Glasgow (no. 170).

Dated year 10.

49. STATER.  $\text{\textcircled{10}}$  in left field.S —  $\alpha$  Petrograd.

Plate X, 2

T —  $\alpha$  Copenhagen; London; Paris (no. 407).

Plate X, 3

50. TETRADRACHM.  $\text{\textcircled{10}}$  in left field.XLI —  $\alpha$  Rouvier (no. 904), gr. 17.05.

Plate X, 4

XLI —  $\beta$  Berlin (Prokesch-Osten), gr. 16.70; London (holed).

Dated year 11.

51. TETRADRACHM.  $\text{\textcircled{10}}$  in left field.XLII —  $\alpha$  Rouvier (no. 905), gr. 17.00.

Plate X, 5

XLIII —  $\beta$  Paris (holed); Alexandria.

Plate X, 6

XLIV —  $\gamma$  Berlin (Prokesch-Osten), gr. 17.14; London.

Plate X, 7

## SERIES I, II, AND III.

Circa 332 to 327 B. C.

The Ake mint was first opened by Alexander sometime in the course of the year 332 B. C., probably in connection with the siege of Tyre. Ake was a strategical point of considerable importance to Alexander at this time and, in consequence, was no doubt strongly held by him. During the siege it would constitute a defence against possible aggression from the South (Gaza and Egypt were as yet unsubdued); it was close to the high-road running from Damaskos to Palestine and Egypt; and it would form a natural and convenient secondary base—Sidon being the first. Later, on the fall of Tyre, Alexander laid siege to Gaza which offered an obstinate resistance for two months. During this time Ake would be of even greater importance as a base than Sidon.

Our accounts of Ake during the Persian period are few and scant. It seems to have been a more or less unimportant town, and, so far as we know,

possessed no mint of its own. Therefore when Alexander decided to open a mint here he found no ready-made coining facilities as had been the case at Sidon. This latter city had therefore to furnish both workmen and dies for the new mint. Die II of Ake was first cut and used at Sidon (here also die II) and then transferred, in a slightly worn condition, to Ake. The artist himself, who cut this die, came and worked for a while in his new home, cutting dies III, IV and V. In consequence of his transfer we find no more of his work at Sidon after the one die (II) cut for the first issue of that city. Besides this die and its cutter, a second die, by another hand, was furnished by the Sidonian mint. Die I of Ake seems certainly to have been cut by the same hand as die I of Sidon. But in this case the artist simply furnished the die without himself coming to Ake, for he continues to work at Sidon for several years more, while the die (I) furnished to Ake remains the sole representative of his handy-work in the coinage of this city.

The first issue at the new mint of Ake consisted of tetradrachms, signed **FULMEN**, using the two obverse dies I and II only, and falling in the year 332 B. C. The succeeding issue of tetradrachms was signed **M** and **M** and had two new obverse dies cut for it. The next issue was smaller, was signed **ΣΩ**, and also employed two new obverse dies. These three mint-marks — **FULMEN**, **M**, **ΣΩ** — must denote magistrates, as they all appear in one mint at about the same time. It would seem reasonable to suppose that these three issues covered three years, a new magistrate being appointed each year and placing his signature upon the coinage. About 330 B. C. the Ake mint discarded this system of marking the coinage with the symbol or initial of the responsible magistrate, and, following the example of Sidon, replaced it with the initial of the city's name. At Sidon the contemporary Alexander coinage is marked with **Σ**, at Ake it is with the Phoenician letter **ו** (**ו**) the initial letter in the city's name **אָקֵה**. This issue is remarkable for the fact that a gold coinage closely modelled on that of Sidon, appears at Ake. The size of the tetradrachm issue was exceptional, for three new obverse dies were cut, two old ones (IV, V) were continued in use, and twenty-two<sup>21</sup> new reverse dies made their appearance. The issue, however, though large, could not have been of very long duration. Not only does the old die V (of **ΣΩ**) appear in this issue but it also appears in the following issue — and the life of an ancient die was seldom long. At Sidon we have a case of an obverse die (Q for the staters) lasting for nearly four years, two other dies, XXXII and XXXIII for the silver, also lasting three and four years respectively — but in every other case two years seems the longest for any one die to last. Therefore we will not be far wrong in assigning the **ו** coins to the period 329 to 328 B. C.

<sup>21</sup> Really twenty-three — but reverse die **a** is an old **ΣΩ** die recut.

In the next issue Ake is clearly designated as the mint of our coins by its name in Phoenician letters placed in the field of both staters and tetradrachms. At Sidon  $\aleph$  was amplified to  $\aleph\imath$  during the course of 327 B. C.; in the same way  $\gamma$  becomes  $\beth\gamma$  at Ake about the same time.

In looking over the actual coins of these three series we are impressed by the fact that they form a close and compact group in style and execution. Dies II, III, IV, and V are certainly all from the same hand. Die V was used for  $\aleph\Omega$ ,  $\gamma$ ,  $\beth\gamma$ ; die IV for M and  $\gamma$ ; reverse die  $\alpha$  of 6-IV is really an old die of  $\aleph\Omega$  recut. A study of the dies of the group shows that a time allowance of five to six years for the entire group, would err, if anything, on the side of generosity. On the other hand it is evident that these coins are contemporaries of the Sidonian issues (nos. 1 to 20) which cover the period 333 to 327 B. C. Like the Sidonian coins the Ake issues at first were also struck from adjusted dies,  $\uparrow$  and  $\downarrow$  being the usual positions. With the  $\gamma$  coins great irregularities appear, some seem to be from adjusted dies, others again are certainly from loose ones. This holds true for the  $\beth\gamma$  coins. The dated issues thereafter are definitely struck from loose dies.

The increased activity, surpassing even that of the Sidonian mint, which commences with Series II and continues throughout the dated issues, is no doubt directly attributable to the fall and destruction of Ake's two neighbors and rivals, Tyre and Gaza. If any reliance is to be placed on the evidence deduced from a close study of its coinage, Ake now sprang into prominence as a city of no mean commercial importance and equal to any on the Phoenician coast, from Arados in the North to the Egyptian borders in the South. At any rate, in quantity of coin issued it now surpasses even Sidon and is second to Arados only at times. The reason is not far to seek. Freed of its two most dangerous rivals — Tyre and Gaza — it no doubt for a time became the principal seaport for Damaskos. The merchandise of inner Asia and of Babylonia which used to come over the high-road running from Damaskos to Tyre, the point of export, must have now been deflected to Ake, lying as it did but twenty miles further South. Another great trade route ran from Damaskos over Neapolis to Gaza and Egypt. The destruction of the emporium of Gaza may well have caused the caravans using this route to follow the branch to Ake which turned off of the main road near the Plain of Esraelon, in other words, practically the same natural and easy route from Damaskos to the sea which is followed to-day by the Haifa-Damascus railway. Thus Ake, profiting by the fall of her two rivals, concentrated within her walls and on her wharfs the export and import trade of Tyre and Gaza. Later when these two cities had both risen from their ashes to renewed prosperity under the Ptolemies, Ake sank back into her former comparative in-

significance. Her history, however, for the thirty years after Alexander's advent was a forerunner of the fast growing prosperity of her modern representative Haifa which, like Ake of old, has no dangerous rivals for the great inland trade over Damaskos. At the time we are speaking of, moreover, Damaskos was incomparably more important than it is to-day. It was the metropolis of the Syrian lands west of the Euphrates in which met the great trade-routes from North Syria to Arabia, from the East through Babylonia to Phoenicia and the West. To-day the Suez Canal has sapped most of this prosperity, but then, both strategically and commercially it was a city of supreme importance, and Ake for thirty years profited by this importance.

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#### SERIES IV.

Circa 326 to 321 B. C.

(Dated years 20-25.)

As we have said above, Series II (signed γ) could not have been of long duration — two years at most — and was followed by the δγ coins long recognized as having undoubtedly been struck at Ake. We now face the surprising fact that these δγ coins have an obverse die in common with certain coins signed δγ and, in addition, dated = or year 20, which coins must therefore follow *immediately* upon the δγ issue. By the detailed study of the preceding successive Series I, II, and III, we thus find ourselves under the necessity of attributing the "year 20" coins to about 327-326 B. C. This runs absolutely counter to what has been considered by all numismatists as a practically established dating of these coins and is so serious that we shall have to take up the matter in detail.

The dates on the Alexander issues of Ake have always<sup>22</sup> been referred to the Era of Alexander the Great taking its inception either with his accession to the Macedonian throne in 336 B. C., or with his conquest of Phoenicia in 333-332 B. C. This has seemed so plausible and self-evident a dating that, with the one exception mentioned in the notes, it has never been seriously questioned. It is therefore a serious matter to propose to overthrow such an "established fact." Our evidences leave us no other course to pursue.

Let us recapitulate. The era to which the Sidonian Alexanders refer is no less than certain, as proved by the fact that the coins dated Ν, Ξ, Ο, Ρ, all bear the name of Philip Arrhidaios. We have in these a solid basis from which to work. Counting backwards through Μ, Κ, and the Phoenician

<sup>22</sup> See G. F. Hill, *Nomisma*, IV, 1909, p. 12; Müller, p. 304, and many later writers with the exception of J. N. Svoronos, "Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαῖων" ρπθ — ρξβ' who believes 311-310 B. C. the commencement of the Era.

alphabetical dates we arrive at the certain date 327-326 B. C. for the commencement of this series of dated coins. Immediately preceding this dated series come the coins signed  $\xi$  and  $\xi\iota$ , which must cover the years 330 to 327 as the years 333 to 331 are certainly taken up by the coins actually dated by the two first letters of the Phoenician alphabet:  $\aleph$  and  $\beth$ . All of which is absolutely corroborated by the sequence of dies and style of the coins in question. Now we have learned above that one obverse die of the Sidonian  $\aleph$  coins was removed to Ake and employed there — thus commencing the Ake series in about 332-331, at the very latest. Thereupon follow three varieties:  $\mathbf{M}$ ,  $\xi\Omega$ , and  $\mathfrak{y}$  which must all have appeared within the course of the next three or four years. The obverse dies of  $\mathbf{M}$  (III, IV) and one of  $\xi\Omega$  (V) were undoubtedly cut by the same artist who cut the die (II) imported from Sidon. The reverse dies of  $\mathbf{M}$  and  $\xi\Omega$  are clearly by the same hand as those of the first or *FULMEN* issue. But the  $\mathbf{M}$ ,  $\xi\Omega$  and  $\mathfrak{y}$  coins could not possibly have covered a long period of years. Between them they have only seven different obverse dies, one of these (IV) was used for  $\mathbf{M}$  and  $\mathfrak{y}$ , and one (V) was used not only for  $\xi\Omega$  and  $\mathfrak{y}$  but also for  $\beth\mathfrak{y}$  as well. At Sidon there are only two cases where an obverse die lasted as long as four years, the average is always two years and less, at the expiration of which time the die showed serious cracks and fractures. The two Ake dies IV and V show only wear. Therefore  $\mathbf{M}$ ,  $\xi\Omega$ ,  $\mathfrak{y}$ , and  $\beth\mathfrak{y}$ , could not possibly have covered more than four or five years at the very outside, bringing us down to about 327 B. C. A close study of the continuity of style of the reverse dies of all these issues would lead to the same conclusion. Now it is also evident, and will no doubt be conceded, that the coins marked with  $\mathfrak{m}$  (year 20) must follow immediately upon the simple  $\beth\mathfrak{y}$  coins; for the two issues are of identical style and workmanship and, furthermore, have an obverse die (XI) in common. Thus we are brought face to face with the disturbing but no less certain fact that "year 20" must have occurred about 327/326 B. C. To date these coins in 316 or 313 B. C. (according to the old system) is an absolute impossibility. A study of the style alone, and its comparison with that exhibited by other contemporary "Alexanders" ought long ago to have shown that they would be a numismatic anomaly dated so late as 316-313 B. C. Every detail of their style and technique point to an early issue. In addition it should be noted that Ake seems to have been in the habit of copying innovations introduced on the Sidonian coinages; thus: circa 330 Sidon plades  $\xi$  on her coins, Ake immediately puts  $\mathfrak{y}$  on hers, circa 328 Sidon writes  $\xi\iota$ , Ake follows with  $\beth\mathfrak{y}$ , 327 Sidon begins to date her issues, and at this very date other considerations would lead us to place the introduction of dates on the Ake coins.

The determining proof that the era by which these Ake coins were dated can not be that of Alexander but must be an earlier one would naturally rest finally upon the evidences of "finds." Curiously enough it was the study of various finds of "Alexanders" that first awoke the suspicion in the writer's mind that the accepted Alexander Era was not suitable for determining the dates on the Ake issues. If the Alexander Era (or Eras) were accepted, the data secured by a study of the finds in question would be conflicting and irreconcilable with other evidences and data. The first and most important of the finds bearing on the question is the great hoard of gold staters found in three separate lots and at three different times in a certain garden in the outskirts of Saida, the ancient Sidon. As this hoard was buried in the very districts whose Alexander issues we are studying, it ought to make a most reliable and valuable witness. Although our accounts<sup>23</sup> of the contents of this hoard are somewhat scanty in detail, nevertheless, such as they are, they have every appearance of veracity, are quite clear, and are supported by many staters actually preserved in the Vienna cabinet carefully ticketed as coming from the Saida finds.

The accounts and a study of these Vienna specimens agree that the latest Sidonian issues of the hoard were those dated K, the latest Ake issues those dated 23 and 24—all in most brilliant state of preservation. As the hoard contained absolutely no coins struck in the name of Philip Arrhidaios the report that K (323 B. C.) was the latest date found is fully corroborated. But what of the Ake years 23 and 24? Ordinarily these dates would be translated as 313 and 312 or 310 and 309 B. C., according to which of the two Alexander Eras (336 or 333 B. C.) was followed. In this case the hoard must have been buried not many years after Philip's death and ought to have contained many representatives of his coinage which was particularly prolific in the East. Our records state clearly that there were no coins of this monarch in the hoard, a fact impossible to reconcile with the above mentioned dates of the Ake coins. Furthermore there would be an unexplainable discrepancy between K (the latest Sidonian date which = 323 B. C.) and the latest of the Ake coins. This discrepancy amounts to as much as eleven and fourteen years. This however might be considered as a mere coincidence.

But look again at the great hoard of Alexander tetradrachms found near Demanhur in upper Egypt a few years ago. The present writer published a description of such pieces as he had been able to gather together in Egypt shortly after the hoard was first dispersed. Among these the latest Ake date was year 25 (according to the Alexander Eras, 311 or 308 B. C.), the latest Sidonian date was year 0 (318 B. C.) between them a discrepancy of seven or

<sup>23</sup> Waddington, *Mélanges de Numismatique*, vol. II, pp. 35, 57.

ten years. Since this description was published, however, by diligent inquiry among collectors and dealers who had acquired many hundreds of coins from the hoard, he has been able to bring together much new material. By this it now seems certain that the Demanhur Hoard originally contained all the Sidonian issues down to and including the year 0 (318 B. C.); all the Ake dates from 20 to 29 inclusive. As year 29, according to the Alexander Eras, equals 307 or 304 B. C. we here have a discrepancy between the Sidonian and Ake dates of eleven or fourteen years — exactly the same amount as revealed by the Saida Hoards.

In the Vienna cabinet is preserved a manuscript account, painstakingly drawn up by Col. Voetter, of a hoard of some three thousand tetradrachms of Alexander the Great and Philip Arrhidaeos found near Aleppo in the year 1892. Besides the manuscript the Vienna cabinet also possesses specimens from the hoard of every variety found. Of Sidon there is nearly a full series of dates from Ν to Ω and, in addition,  $\overset{M}{A}$ , and  $\overset{M}{B}$ . In our study of the Sidonian mint we saw that these last two dates represent 308 and 307 B. C. Of Ake there are decipherable dates running from 23 to 39, and in addition, year 9. Now year 39 has been taken as = 297 or 294 B. C.; year 9 (as we will see in our studies of the Ake mint) was struck in the following year, or 296 and 293 B. C. Placing these results side by side we again have a discrepancy of eleven and fourteen years between the Sidonian and Ake coins in this hoard.

When three such large hoards, all buried in the East, give absolutely identical results, it can not be a mere coincidence that the Sidonian and Ake dates do not agree — one or the other must be wrong. But the correctness of the Sidonian dates is made certain by the presence of the name of Philip, who died in 317 B. C. It follows, therefore, that the era by which the Ake dates have been computed must be wrongly taken. What era, then, was used at Ake, and when did it commence? According to the evidence presented by the Saida Hoards, if K (latest Sidonian date) = 323 B. C. then by adding to this 24 (the latest Ake date) we get 347 B. C. as the date from which the years were reckoned at Ake. This date is furthermore exactly corroborated by computing, as we have done in the case of the Saida Hoards, by the latest dates of the Sidonian and Ake coins from both the Demanhur and Aleppo Finds. Thus, for Demanhur, we get 0 = 318 B. C. + 29 = 347; for Aleppo:  $\overset{M}{B}$  = 307 B. C. + 39 + 1 = 347 B. C. If therefore, the era used at Ake commences in 347 B. C. the coins bearing the first date employed, 20, must have been struck in 327 B. C. This is the exact date at which we have already arrived for the "20" coins in our study of the sequence of dies and style. As we proceed with our studies of the Ake mint we will find many

points all speaking in favor of an era commencing in and around the year 347 B. C.

The simplest and at the same time most plausible explanation of the dates 20 to 39 is that they represent the regnal years of some local dynast whose reign commenced in 347 B. C. Any other historical event that could have occurred at Ake at this time of such tremendous importance that the mint authorities in 327 B. C. should be induced to commence dating the coinage by it rather than by a more recent and, for the history of all Phoenicia, infinitely more vital event as the arrival of Alexander the Great and the overthrow of the Persian Empire, is unthinkable. If indeed there had been such an event, history is strangely silent concerning it. On the other hand it may seem strange that during the lifetime of Alexander himself his coinage should be dated at Ake by the regnal years of a petty dynast. It is, however, certain that Alexander, where possible, was inclined to leave the local affairs of Phoenicia and Cyprus very much as they had been under the Persian Kings. The local dynasts, when they had submitted to him and seemed likely to remain loyal, were left to their possessions. Ake is not mentioned by the historians of Alexander's campaigns; in all probability, therefore, the city followed the example of Arados, Byblos, Sidon, and others, and submitted peacefully.

Under the Persian Empire, local coinages in Phoenicia had often been dated by the regnal years of local princes; it is probable that under the more enlightened rule of Alexander no objection would be made to a similar procedure. Besides, the uniformity of types and weights with the remaining coinages of the empire would be the all-important point — the actual control of the coinage, whether by the symbols or initials of magistrates or by the regnal years of some local king, would be secondary and looked upon as a purely local matter. Not very much later than this (circa 323 B. C.) Pumia-thon, the vassal king of Kition in Cyprus, struck gold coins bearing not only his own regnal dates but even his own types. Thus we learn that the first dated coins appeared at Ake in the twentieth year of the reign of the unknown king of that city, and that this year about synchronized with the seventh year of Alexander's Phoenician Era, or 327/326 B. C. From 20 the dates run in unbroken line through 39. But Rouvier publishes coins dated in the years: 5, 6, 9, 10, and 11; Hill discards year 5, but adds to the list years 8, 13, 15, and 16. If year "20" is the first date found on the Ake coins, what becomes of the earlier dates? In a special section will be found a discussion of the "misread dates," and among these are the supposed years 5, 6, 13, 14, 15, and 16. There still remain 8, 9, 10, 11, which will also be taken up in a later section; suffice it to say here that these four dates follow

directly *after* "39" as is proved by identical dies, "20" therefore remains the first date used.

There is little variation in the actual coins of Series IV (years 20 to 25). Both the gold staters and the silver tetradrachms retain their archaic look. For year 21 there is a small issue of dated obols, otherwise divisional coins are lacking.

#### SERIES V.

Circa 321 — 317 B. C.

(Dated years 26 to 29.)

Series V is inaugurated by the coins dated 26 which appeared, it seems probable, some time between the closing months of 321 and those of 320 B. C. At first the style is identical with that of year 25, but soon a modification appears on both the staters and tetradrachms. On the staters the formal curls change to flowing locks and the inscription ΑΛΕΞΑΝΔΡΟΥ is henceforth always behind Nike; on the tetradrachm Zeus has drawn his right foot back until it is behind the left, the style is similar to that adopted at the Sidon mint in year 9 (¤). The characteristic feature of Series V, however, is the Phoenician letter **¤** which is found in addition to the regular inscriptions on both staters and tetradrachms of the years 26 to 29. The letter is not susceptible of positive explanation, but it seems likely that this letter was only a variant — perhaps some magistrate's initial. As it does not appear on the coins of year 26 till towards the close of that year — that is, after the middle of 320 B. C. — it may be connected with the seizure of Phoenicia by Ptolemy in the early Summer of 320 B. C. A new supervisor of the coinage, in the interests of Ptolemy, may then have been appointed, who indicated his responsibility by signing the coinage with his initial.

To the same period must be attributed the bronze coins which now appear for the first time at Ake. A few bear the usual inscription **¤**, the date **III III=**, and two Greek letters **TY**, most easily explainable as the initials of the neighboring city of Tyre. The next issue retains **TY** and **¤**, but omits the date. This innovation of a bronze coinage may also have occurred after Ake had become an Egyptian possession. The most interesting thing about this bronze coinage is the presence of the Tyrian initials **TY** showing that Tyre had some part in its production. Since the memorable siege of 333 — 332 B. C., Tyre had been deprived of all rights of coinage. Of the original population but few remained, the city itself had been practically destroyed in the siege, and the island had since been converted into a naval station and a "place d'armes" for Alexander's dominions in Phoenicia. Very slowly,

however, the city seems to have recovered from the catastrophe of 332, but, commercially, could not compare with Sidon or Ake. We hear of no resistance made by it during Ptolemy's high-handed seizure of Phoenicia in 320 B. C. Ptolemy placed a strong garrison in it, and probably greatly strengthened its fortifications, for later it was able to resist Antigonos and his powerful army for fifteen months when he laid siege to it in 315 B. C. Even then it was only by starvation that the city could be subdued. Like all garrison towns there was probably a continuous and lively petty trade going on between the soldiers and what remained of the townspeople. As the mint had been suppressed at Tyre, recourse seems to have been had to the neighboring mint of Ake to supply the small change so necessary for these daily transactions, this "small change" being represented by the above-mentioned bronze coins bearing the joint initials of Tyre and Ake. The interesting fact of an issue of coin at Ake for Tyre, marked with the initials of the names of the two cities, would suggest that the  $\aleph$  appearing at this same period on the silver coins might have a similar explanation. The  $\aleph$  may indeed represent the initial of either of Ake's two southern neighbors,  $\text{אשדּוֹד}$  Ashdod or, more probably,  $\text{אשָׁלָן}$  Askalon. The latter, in particular, was a busy seaport of increased importance since the destruction of Gaza, and therefore likely to have the need of a coinage, but, so far as we know, never possessed of a mint of its own until considerably later times. On Plate X, no. 10, is given a tetradrachm which closely follows the style of certain coins of the Ake series (tetradrachms of years 30-31) but does not bear the name or dating of that city. The  $\aleph$ , to be seen on the reverse beneath the throne of Zeus, may perhaps indicate that this particular coin was struck at Askalon (or Ashdod) itself. What makes this the more likely is that the style of the coin is good enough for an established mint and too good for those irregular issues of which notice will be taken later; while the fact that a date and the name of Ake is missing would seem to preclude its having been struck in that city.

## SERIES VI.

Circa 317—307 B. C.

(Dated years 30 to 39.)

The coins of Series VI bear dates from 30 to 39 which latter date ends this series. The issue consists of staters and tetradrachms only, none bear the Phoenician  $\aleph$  of the previous series. The style is a continuation of what we have had before and shows no improvement until we come to the last coins of year 39. These, both gold and silver, are very much finer than any

ever before issued by the Ake mint. The gold coinage during these years seems to have been comparatively small, no coins being known of years 31, 32, 34, 36, and 37. According to the new dating, years 31 and 32 would seem to fall at the time Antigonos was actually invading Phoenicia and laying siege to Tyre; years 36 and 37 at the time he and his son Demetrios were struggling with Ptolemy for the dominion of Phoenicia. During these troublous periods the coinage of gold may have been interrupted at Ake. On the other hand, the silver coinage was not once stopped but continued to appear yearly throughout all this time. We must therefore consider Diodorus' statement<sup>24</sup> that Ake was destroyed by Ptolemy in 312 B. C., when he evacuated Phoenicia before Antigonos' threatening advance, as somewhat overdrawn. It is probable that he contented himself with simply demolishing the fortifications. In fact, the stirring history of this period seems to have had little effect on the Ake mint, at least as far as the coining of silver went.

As stated above, 39 is the highest date known and the last of the series which commenced with 20; such higher dates as 40, and 46 do not exist and will be discussed in the section on "misread dates." If, as seems most likely, these dates are regnal years of the local king of Ake, then 39 constitutes the last year of his reign and the year in which he either died or was deposed.

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### SERIES VII.

Circa 307 — 304 B. C.

(Dated years 8 to 11.)

In the Brussels collection is preserved a tetradrachm inscribed **ΣΥ** and the date **|||**, that is, year "8." The obverse is from die XL which was used for the last issue of coins dated "39," the reverse is from the hands of the same artist who engraved the reverse dies of that same year. Still other tetradrachms dated "9" and "10" continue to use die XL and to have reverses identical in style to those of "8." It is therefore established, beyond a doubt, that these lower dates must *follow* the 20-39 dates. Hence it is evident that in the thirty-ninth year of some local dynast the dating of the Ake issues by the regnal years of that individual was discontinued and some other era substituted. The fact that we have only one specimen of the coinage dated in year 8, while every other year has given us coins in plenty, together with the slight amount of wear shown by the obverse die when used for year 9, would lead to the inference that years 39 and 8 were conterminous,

<sup>24</sup> Diod., XIX, 93-7.

the 8 coins appearing just before the end of the year, which accounts for the fewness of their number. Our previous studies have brought us to the conclusion that year 39 fell about 308-307 B. C. — it now remains to be determined what era 307 was the eighth year of, in other words to what era the years 8-11 must refer. Counting back eight years from 307 B. C. we arrive at the Summer of 315 B. C. for the starting point of the new enumeration. Now 315 B. C. was momentous for Phoenicia as being the year in which the now all-powerful Antigonos, after disposing of his many rivals in Asia Minor, Syria, Babylonia, and the East, turned his attention to the Satrap of Egypt and, as a preliminary, invaded Phoenicia and took possession of her cities. Henceforth, except for the brief Summer of 312, Phoenicia formed part of Antigonos' dominions and recognized him as her actual ruler. By 307 B. C., when the new dating was commenced at Ake, Alexander Aegos had been dead for over two years, and therefore Antigonos, in name as well as in deed, was the suzerain of the Phoenician cities. It would, then, be natural for Ake to adopt 315 B. C. as the most suitable starting point for a new era, seeing that her own kings were either no more, or much curtailed in power and dignity. As we have seen, the coinage uses the new era until the eleventh year, when the dated coins of this mint come to an abrupt termination shortly after the same thing had occurred at Sidon. The reason for this mutual cessation is not known, but suggestions, which would hold good for both mints, were put forward in our study of the Sidonian issues.

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#### IRREGULAR ISSUES.

A study of the regular coinages of Sidon and Ake in the last third of the Fourth Century B. C. would not be complete without at least a passing notice being taken of certain coins struck outside these two cities but in direct imitation of their issues. On Plate X, nos. 8 to 12, are given a few examples of such copies. In no. 8 we have a copy of tetradrachm no. 45 (obverse die XX or XXI) struck at Sidon in the year "O" with the  $\Phi\Lambda\Lambda\Gamma\Gamma\Omega\Upsilon$  legend of the original badly blundered. In no. 9 we have an imitation, of good weight and metal, of the Ake stater no. 5. The legend  $\Lambda\Lambda\Gamma\Gamma\Delta\Omega\Upsilon$  on the imitation is also considerably blundered and the style of the coin is poor. Plate X, no. 10 has already been spoken of (page 61) and the suggestion made that it is not an irregular issue but a bona-fide coin of Ascalon. In either case it should be noted that the artist employed the regular Ake issues of years 30 and 31 as his model. Plate X, 11 is a hybrid copy — the obverse being modeled on the Sidonian die XV (Plate III, 1 and 5), the reverse on the Ake

issues of the years 30 to 32; the date is supposed to read "26." Finally, Plate X, 12, is a frank forgery made for fraudulent purposes. It is a plated coin with a copper core, its date reads 32, and the original model seems to have been the coin reproduced on Plate VIII, no. 10.

Examples of these and other irregular Alexander coins are fairly common in hoards buried towards the end of the Fourth and the commencement of the Third Centuries B. C. In many cases such coins are plated pieces, in other words frankly counterfeits and made for fraudulent purposes; but more often they are of good metal and in weight very closely approach the norm. These irregular issues of good metal and weight were probably struck by mountain tribes or small out-of-the-way towns when the normal supply of genuine "Alexanders," through one cause or another, had become temporarily scarce. The great majority of such copies seem to have originated in the mountainous portions of Asia Minor and Northern Syria; a few others in inland Arabia and the lands to the east and the southeast of the Zagros Range; and others still among the barbarous tribes to the north of Thrace and Macedonia. Their style betrays their irregular origin; together with the frequent blundering in their inscriptions, symbols and monograms, and the hybrid nature of their obverses and reverses which often follow different models. They are not without interest, however, and at times are valuable in assisting the correct attribution of genuine issues.

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#### MISREAD DATES, AND CORRECTIONS.

Because of their minuteness and the nature of their construction, the dates on the Ake Alexanders are often very difficult to decipher correctly — particularly if the coin be slightly worn. On account of this an unusual number of errors have crept into the lists drawn up by previous writers, who may not have had the material or the time to approach the subject primarily from the standpoint of dies. Particularly are the errors frequent in the case of the staters, where the actual figures are exceptionally small and the flans themselves seldom large enough to contain the complete number. In such cases it takes several specimens, struck from identical dies, to determine what number the figures were originally intended to represent. We will therefore take up the staters first. For all publications prior to 1901 it will be sufficient to quote Rouvier's "Numismatique des villes de la Phénicie,"<sup>25</sup> which incorporates such Alexander coins of Sidon and Ake known up to that time.

<sup>25</sup> *Journal Internationale d'Archéologie Numismatique*, 1901.

No. 886, a supposedly undated stater, heads Rouvier's list of Alexander coins struck at Ake. The four specimens known are all struck from the same reverse die; on three of these the date is off the flan, but on the fourth — now in Petrograd — the numeral ρ can just be distinguished at the edge of the coin. The coin therefore is a stater of year 10. Aside from the proof furnished by the numeral itself, the same obverse die was used for the preceding year 39 and, furthermore, the only known undated coin is of early style with ΑΛΕΞΑΝΔΡΟΥ on the left and δυ on the right. No. 888 is erroneously given as belonging to year 23, an impossibility, as all the known staters have the date to the right and not, as Rouvier says, to the left of Nike. Rouvier quotes Müller who probably had before him a coin of year 38 or 39 with the last decimal and all but three units off the flan — such a coin as our no. 39, P, a (Gotha) where this has actually happened. On no. 889 the date and δυ should be to the right of Nike. The same is true of 890. Actual specimens of coins such as Müller, and, after him, Rouvier describe, are unknown to the writer and seem to him to be of the same category as no. 888. On 891 the inscription is in two lines and not one. Both 892 and 893 give the form "O" instead of □ for "20" a form not known to the writer and, judging from extant coins, a misreading for the usual =. Rouvier gives 894 (year 34) on Mionnet's, 895 (year 36) on Müller's authority. At present these two dates do not seem to be represented by actual specimens, but there is no reason to suppose that staters were not struck in these years; it is possible that Müller had before him coins not known to the present writer. Under 897, again on Müller's sole authority, is published a coin supposedly bearing the date "40." This must be highly suspect, as our evidence would seem to show that in the year 39 the dating was changed to "8." No. 898 (year 46) has already, and rightly, been questioned by Hill who sees in it a misread year 26.

In Nomisma for 1909 Hill publishes eleven staters bearing new dates. Of these 10, 21, 24, 29, 35, and 38 are undoubtedly correct; the remaining five, however, are open to discussion. His year 6 is the coin (now in London) given in the present catalogue to year 26 (23, F, a<sup>1</sup>). This is determined by the Berlin specimen (23, F, a<sup>2</sup>) which is struck from the same reverse die and clearly reads 26. The engraver of this die seems to have omitted the □ (20) at first, later it was inserted and shows on the Berlin coin. "Year 6" therefore falls out. The next three years published by Hill — 13, 15, and 20 — all stated as being in the Berlin collection, the writer has found it impossible to trace among the casts sent him by that Museum. By an oversight they may not have been included among the casts sent. Of these dates year 20 would be very possible, but 13 and 15 seem highly suspicious. The writer particularly doubts these two dates, as among his notes, drawn up

during a recent visit to the Berlin cabinet, he finds three entries to the effect that three staters in this collection are undoubtedly misread, namely those for years 13, 14, and 16. Furthermore, the notes state that the stater read as 13 has the same obverse die as the stater undoubtedly of year 26; the stater read as 14 was certainly 24; the stater read as 16 had the date very much worn but as it was from the same obverse die as coins of year 24 it was probably of that year also. Hill's two coins may well be among these three. Year 37 is the fifth doubtful date given by Hill. This is based on the Berlin specimen which in the present catalogue is to be found under 43, R, 8. In this case the last unit is off the flan, the date must originally have been 38 as proved by two other specimens both from identical obverse and reverse dies.

Owing to their larger sizes and inscriptions the tetradrachms have suffered much fewer misreadings. On Müller's and Sestini's authority, Rouvier (no. 901) gives a coin to year 5, but this coin is rightly suspected by Hill. Rouvier (no. 902), year 6, rests only on Müller and Mionnet; as no such coin has recently appeared and as it does not fit in with what seems to be the correct order of the dates: 20 to 39, and 8 to 11, it ought to be discarded. Rouvier no. 927, a coin in the Hague cabinet supposedly reading year 46, is shown by Hill to be wrongly read and in reality is of year 36. No. 928 of year 14 Rouvier himself suspects and it is not even mentioned by Hill.

In his article in *Nomisma* Hill publishes three tetradrachms which it now seems necessary to discard. These are given as reading years 13, 16, and 40, all in the Berlin cabinet. The first of these dates the present writer has been unable to trace among the casts sent by the Berlin authorities, and so it has not been incorporated in the present catalogue. Year 16 is our coin 41, XXXIV, *a*, really reading 36—as the obverse die proves. The fact that a flaw in the die between the = and the – of the date makes the decimals look like one horizontal line and so easily misread as a 10. The supposed year 40 is from the same obverse die as year 30, a flaw in the reverse die making the latter date look like the former. Thus in every case where published dates do not seem to agree with the series of dates as given in the present catalogue, namely 20 to 39 and 8 to 11, there are grave reasons for doubting their correctness.

In the few instances where it has been impossible to trace the actual coin from which published readings other than 20 to 39 and 8 to 11 have been made, the very absence of these coins would lead to the suspicion that they had been misread. Only a very few museums or private collectors failed to respond to the present writer's urgent requests for casts of their Alexander coins struck at Sidon or Ake. This study is therefore based on practically the entire material at present available, which consists of 111 staters and 162

tetradrachms of Sidon, and 58 staters and 328 tetradrachms of Ake, not to mention the smaller divisions. In spite of such a mass of material, in the cases of both Sidon and Ake, there are still some gaps in the sequence of their coins which future finds may, and probably will, fill. Thus, for instance, in the case of Sidon, we have no stater to accompany the tetradrachm no. 18 with Σ and the ivy leaf symbol; both staters and tetradrachms for year 11 (Λ) are still unknown; we have no staters for years 15 (Ο), 17 (Ρ), 22 (Χ), 24 (Ω), or of the second series of dates 2 (Β), 3 (Γ), and 4 (Δ), and no tetradrachms of year 19 (Τ). Of Ake we still have no staters dated for years 20, 22, 28, 31, 32, 34, 36, 37, or the succeeding years 8, 9, and 11, though our series of tetradrachms for all the years is now complete. It is also quite possible that a few new smaller divisions, to accompany the larger denominations, may yet turn up.

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#### DIES.

In closing, passing attention ought to be drawn to the proportion of obverse dies to reverse dies. At Sidon for the gold we have 36 obverse and 55 reverse dies, for the silver tetradrachms 33 obverse and 79 reverse dies; at Ake we have for the gold 20 obverse, and 32 reverse dies, for the tetradrachms 44 obverse and 98 reverse dies. This gives a proportion for the gold of both mints of 1 : 1½, and for the silver of about 1 : 2½ — a very low proportion of reverse dies in comparison with results obtained from a study of dies in other ancient mints. While the number of obverse dies is probably very near the original figures, future finds will no doubt materially add to the number of known reverse dies. However, this unusually low ratio between the known obverse and reverse dies can not be entirely due to chance, but is in many cases influenced by an uneven amount of coinage issued from year to year. The actual gold issues of both Sidon and Ake could never have been very large, hence the few reverse dies cut per year were able to last out each issue, with the resulting low ratio of 1 : 1½ between obverse and reverse dies. The coinage of silver at both mints was naturally much larger and we find a correspondingly larger proportion of reverse dies. But, here too, the sizes of the actual issues no doubt varied considerably from year to year, and so it is hardly admissible to base any theories on the average ratio taken from the coinage as a whole. For instance, one year of great activity at Ake (year 37) gives us a return of two obverse dies used in conjunction with no less than sixteen reverse dies — a proportion of 1 : 8 — or about the usual ratio we find in studying the issues of other ancient mints. Other years where we have an unusually low proportion between obverse and reverse dies

(always granting the ever present possibility that new finds may materially change these proportions) may best be explained by a very short duration of activity in the mint during the year, with the corollary that there was no necessity of cutting more than a few reverse dies. That occasionally there were such small issues per year is furthermore corroborated by the fact that we possess instances, both at Sidon and Ake, of obverse dies which lasted from two to four years—an unusual event in such ancient mints as enjoyed much activity.

## ERRATA.

Page 12, note 12; **ו** should read **ו**; **ה** should read **ה**.  
Page 16, line 24; before Plate insert (obverse).  
Page 23, line 27; **צדו** should read **צדן**.  
Page 26, line 11; **צדז** should read **צדן**.  
Page 32, note 48; **Γ** should read **Π**.  
Page 37, line 29; **עַ** should read **עַב**.  
Page 42, line 6; **עַ** should read **עַב**.



## INDEX TO PLATES

### PLATE I.

1. London.	9. Berlin.	17. Coll. E. T. N.
2. Berlin.	10. Coll. E. T. N.	18. Berlin.
3. Vienna.	11. Same.	19. Coll. E. T. N.
4. Coll. E. T. N.	12. Same.	20. Same.
5. London.	13. Gotha.	21. Same.
6. Serrure Sale, March, 1914.	14. Coll. E. T. N.	22. Same.
7. Berlin.	15. Berlin.	23. Same.
8. London.	16. Berlin.	24. Same.

### PLATE II.

1. Coll. E. T. N.	10. Coll. E. T. N.	19. Berlin.
2. London.	11. Berlin.	20. Coll. E. T. N.
3. Coll. E. T. N.	12. Berlin.	21. Naples.
4. Same.	13. London.	22. Coll. E. T. N.
5. London.	14. Coll. E. T. N.	23. Same.
6. Coll. E. T. N.	15. Berlin.	24. Berlin.
7. London.	16. Coll. E. T. N.	25. Berlin.
8. Coll. E. T. N.	17. Paris.	26. Berlin.
9. Berlin.	18. Coll. E. T. N.	

### PLATE III.

1. London.	9. Vienna.	17. Coll. E. T. N.
2. Petrograd.	10. Berlin.	18. London.
3. London.	11. London.	19. Coll. Routhier.
4. Berlin.	12. London.	20. Coll. E. T. N.
5. Coll. E. T. N.	13. Coll. E. T. N.	21. Vienna.
6. Vienna.	14. Same.	22. London.
7. Dresden.	15. Same.	
8. Coll. E. T. N.	16. Berlin.	

### PLATE IV.

1. Coll. Routhier.	9. Petrograd.	17. London.
2. London.	10. Berlin.	18. Coll. Routhier.
3. London.	11. Berlin.	19. Vienna.
4. Berlin.	12. Copenhagen.	20. London.
5. Vienna.	13. London.	21. Berlin.
6. London.	14. Coll. Routhier.	22. Vienna.
7. Berlin.	15. Alexandria.	
8. London.	16. Coll. Davidson.	

## PLATE V.

1. Coll. E. T. N.	8. Coll. E. T. N.	15. Coll. E. T. N.
2. Vienna.	9. Same.	16. Berlin.
3. Munich.	10. Same.	17. Coll. E. T. N.
4. Vienna.	11. Coll. Dattari.	18. Same.
5. Coll. E. T. N.	12. Coll. E. T. N.	19. Same.
6. Berlin.	13. Same.	20. Same.
7. Berlin.	14. Same.	

## PLATE VI.

1. Coll. E. T. N.	9. Coll. E. T. N.	17. Coll. E. T. N.
2. Berlin.	10. Same.	18. London.
3. Gotha.	11. Same.	19. Vienna.
4. Berlin.	12. Berlin.	20. London.
5. Coll. E. T. N.	13. Commerce.	21. Coll. Yakountchikoff.
6. Same.	14. Coll. E. T. N.	22. Coll. E. T. N.
7. Same.	15. Paris.	23. Same.
8. London.	16. London.	

## PLATE VII.

1. London.	9. Petrograd.	17. Cambridge.
2. Berlin.	10. Vienna.	18. Paris.
3. Berlin.	11. Berlin.	19. Berlin.
4. Vienna.	12. Paris.	20. Coll. E. T. N.
5. Cambridge.	13. Coll. Dattari.	21. Coll. Rouvier.
6. Coll. E. T. N.	14. London.	22. Coll. E. T. N.
7. Same.	15. Coll. E. T. N.	23. London.
8. Same.	16. Same.	

## PLATE VIII.

1. Paris.	7. Berlin.	13. London.
2. Berlin.	8. Coll. Rouvier.	14. Berlin.
3. Coll. E. T. N.	9. Berlin.	15. London.
4. Same.	10. London.	16. Coll. E. T. N.
5. Paris.	11. Glasgow.	17. Coll. Rouvier.
6. Berlin.	12. Berlin.	18. Vienna.

## PLATE IX.

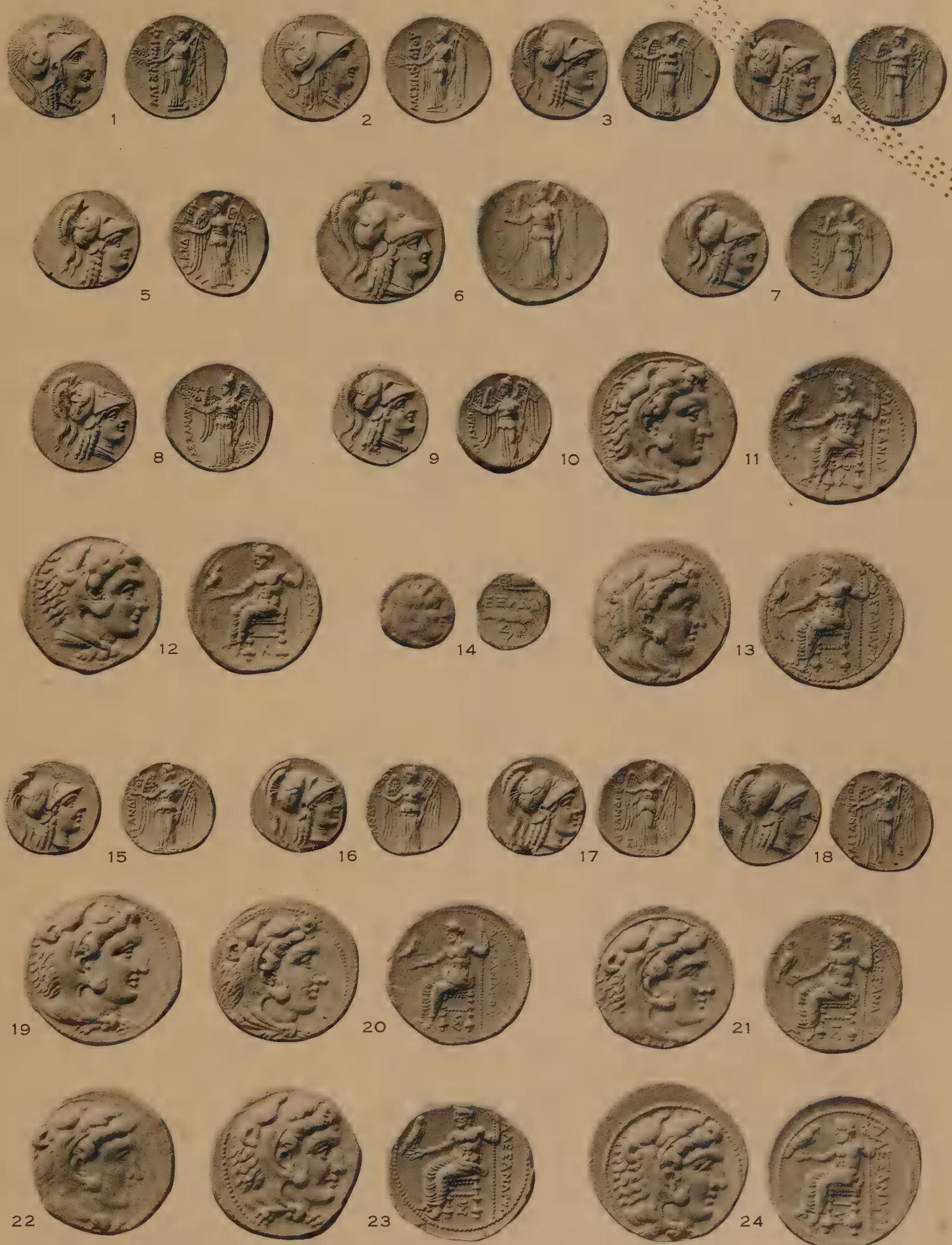
1. London.	7. Vienna.	13. Vienna.
2. London.	8. Coll. Torrey.	14. Paris.
3. London.	9. London.	15. Coll. Rouvier.
4. Vienna.	10. Berlin.	16. Berlin.
5. London.	11. Egger Sale XL, Nov., 1912.	
6. Berlin.	12. Vienna.	

## PLATE X.

1. Vienna.	5. Coll. Rouvier.	9. Berlin.
2. Petrograd.	6. Alexandria.	10. Vienna.
3. Paris.	7. London.	11. Vienna.
4. Coll. Rouvier	8. Coll. Rouvier.	12. Vienna.















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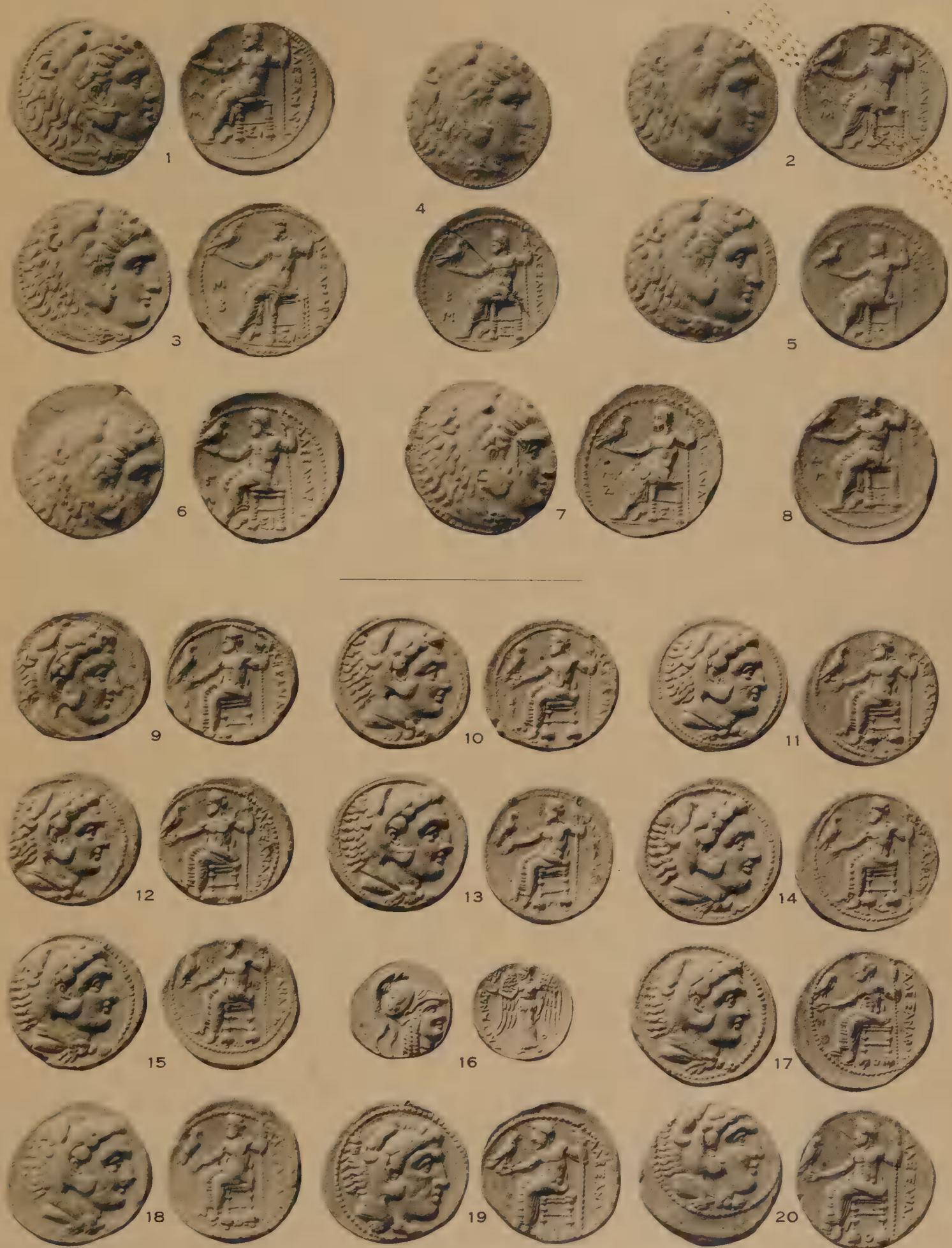








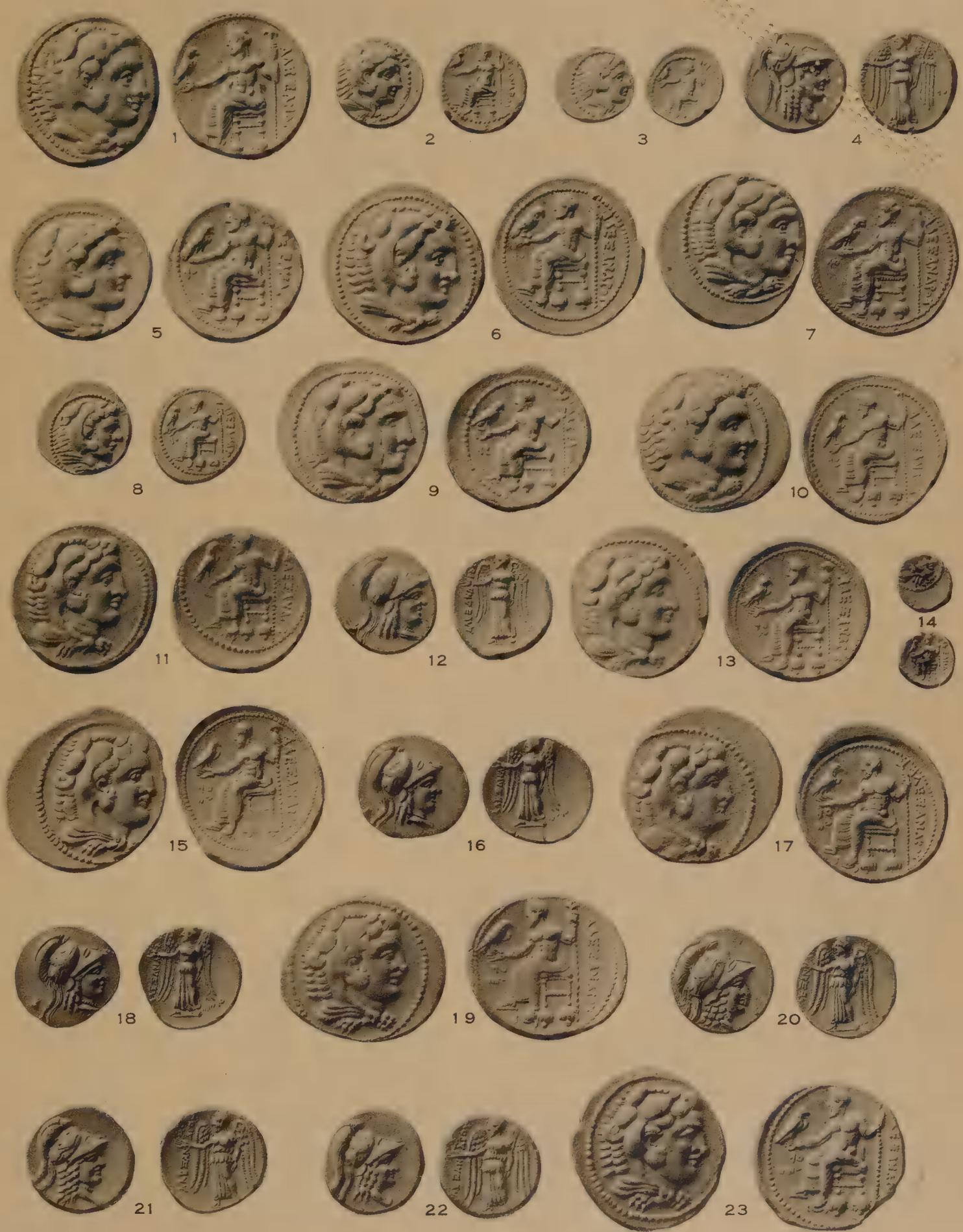








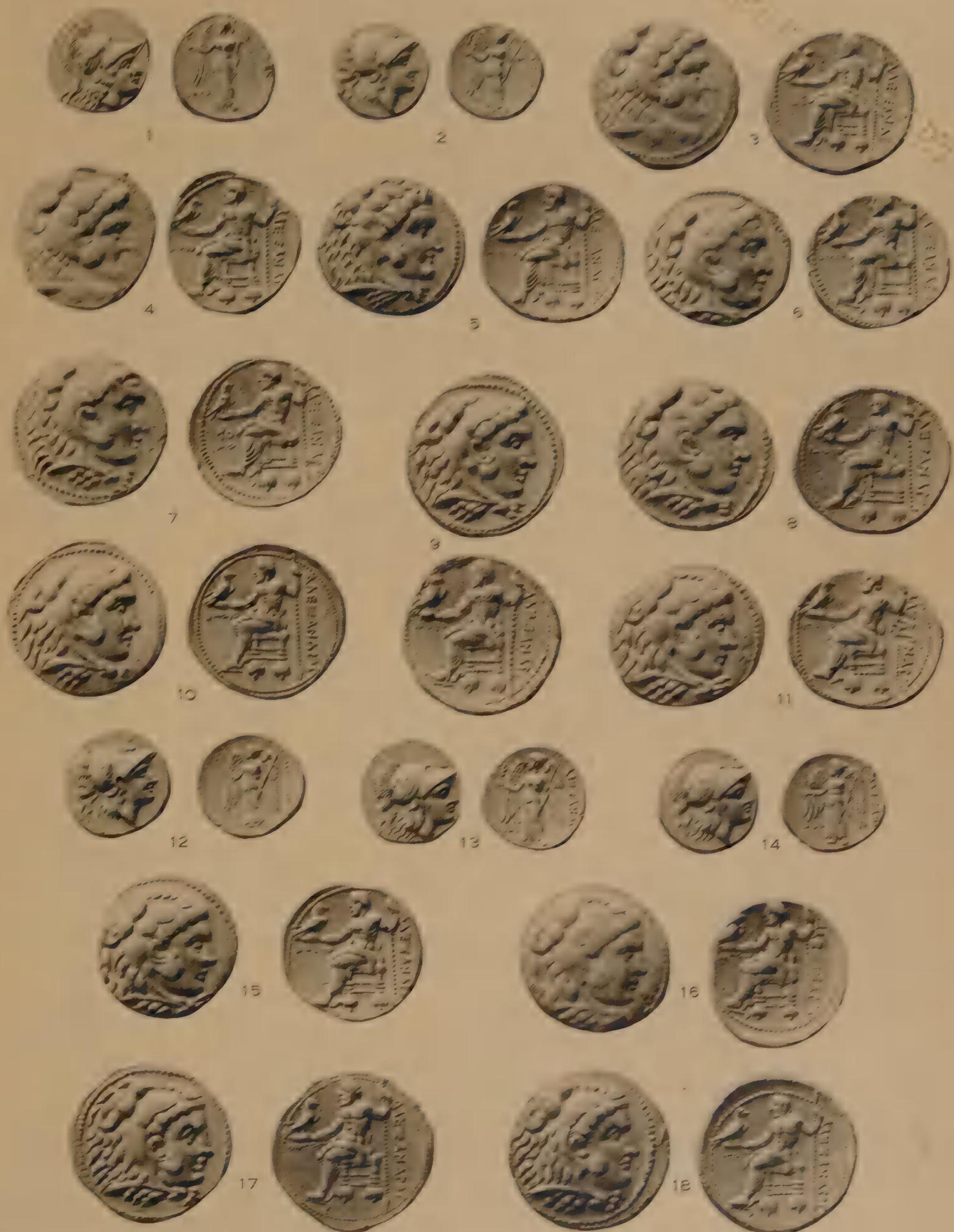








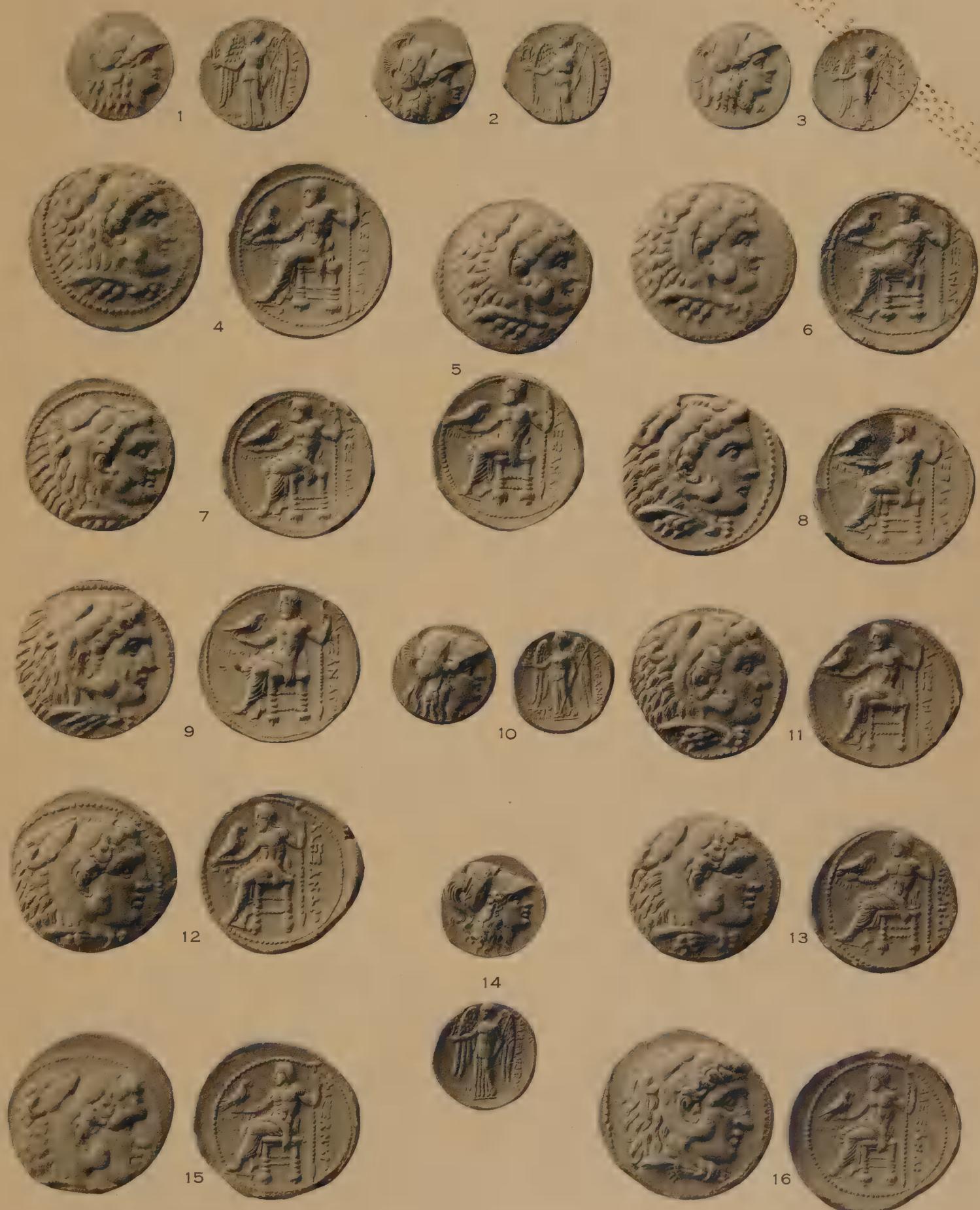
















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